

b6  
b7C  
b7E

CELL/OTD 004300

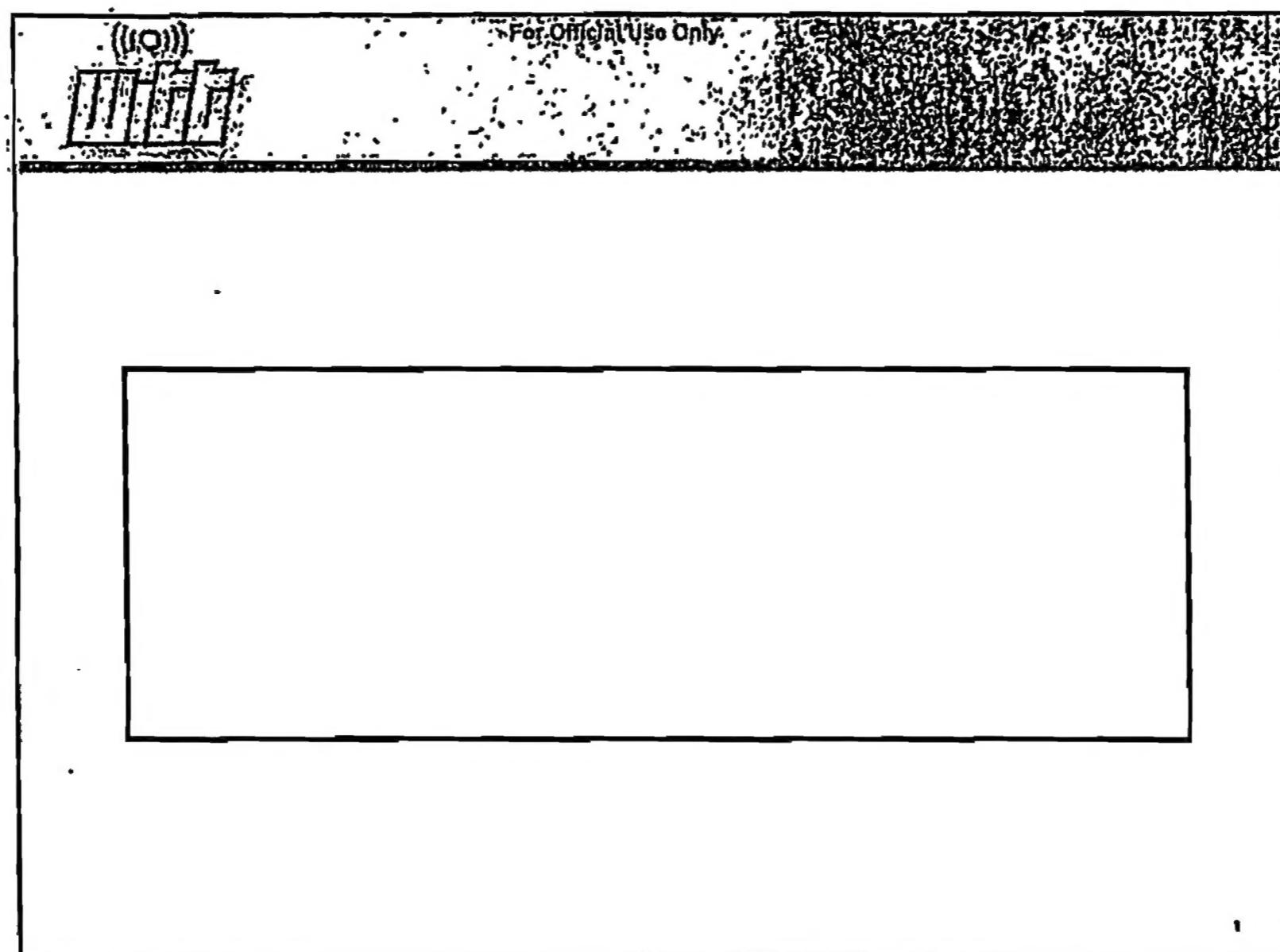
4

FBICELL-158

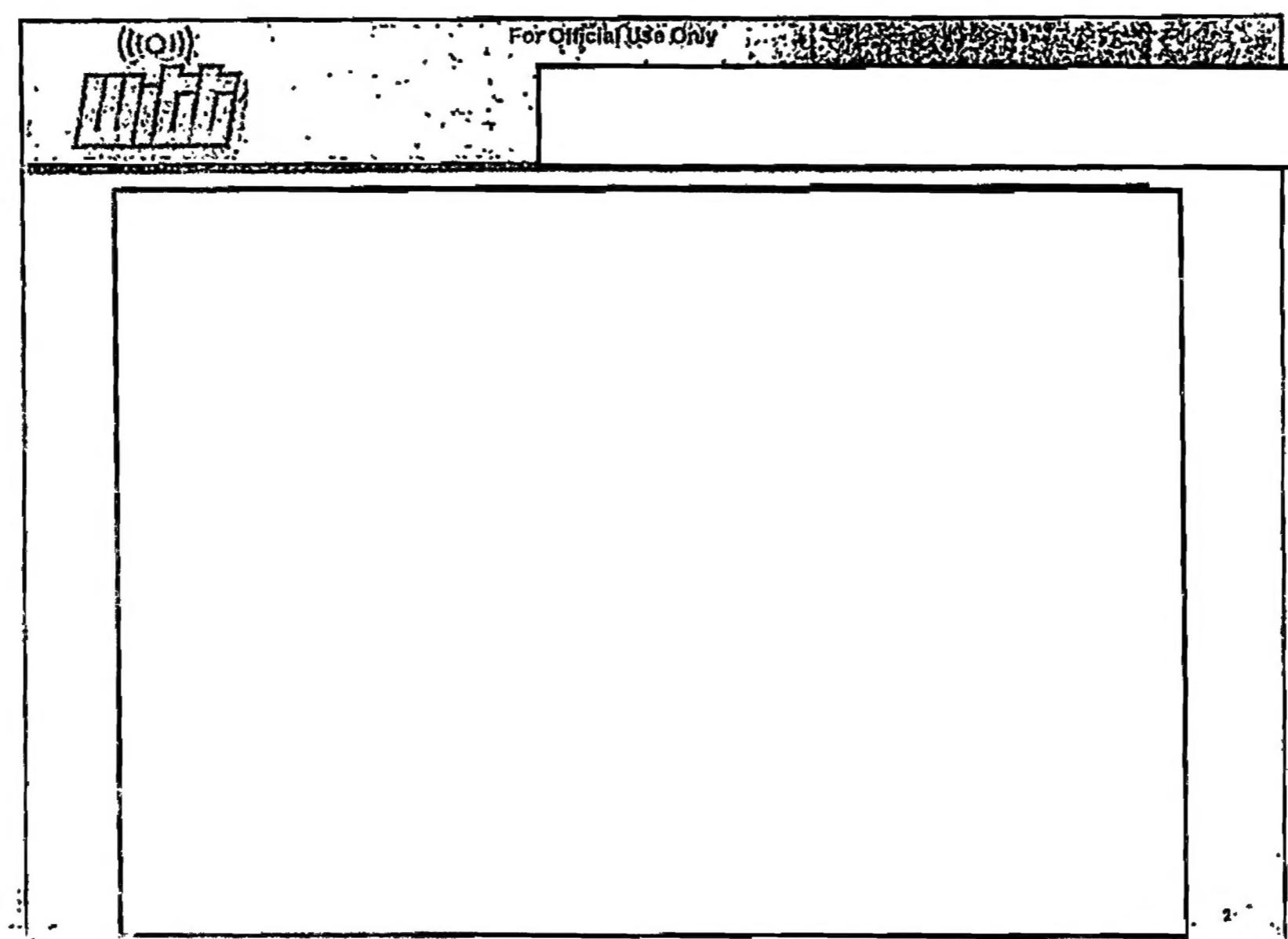
Intro

b7E

FBICELL-159



b7E



b3  
b7E

CELL/GTD 004301

1

FBI/CELL-160

((Q))

For Official Use Only



b7E

((Q))

For Official Use Only

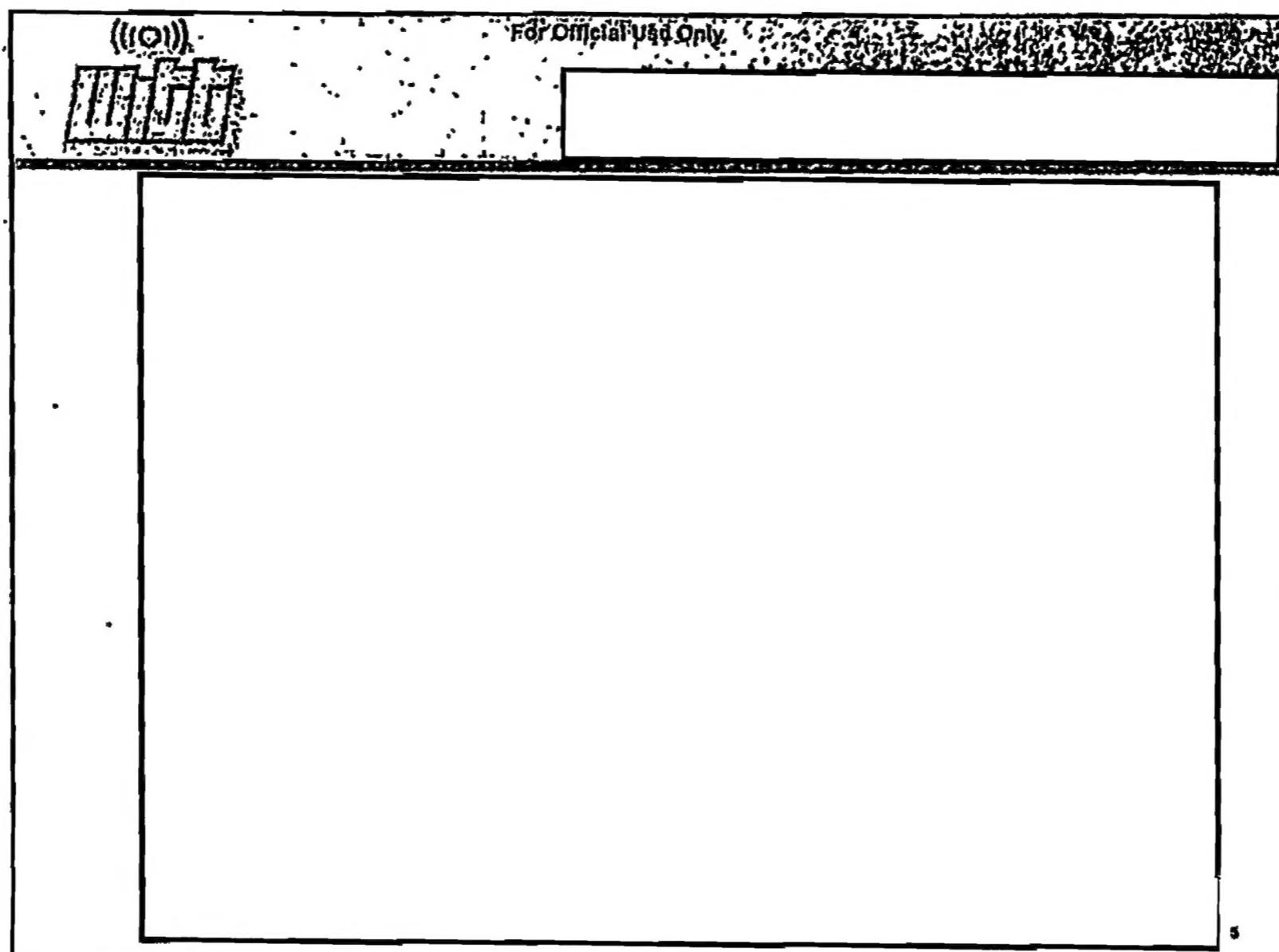


b3  
b7E

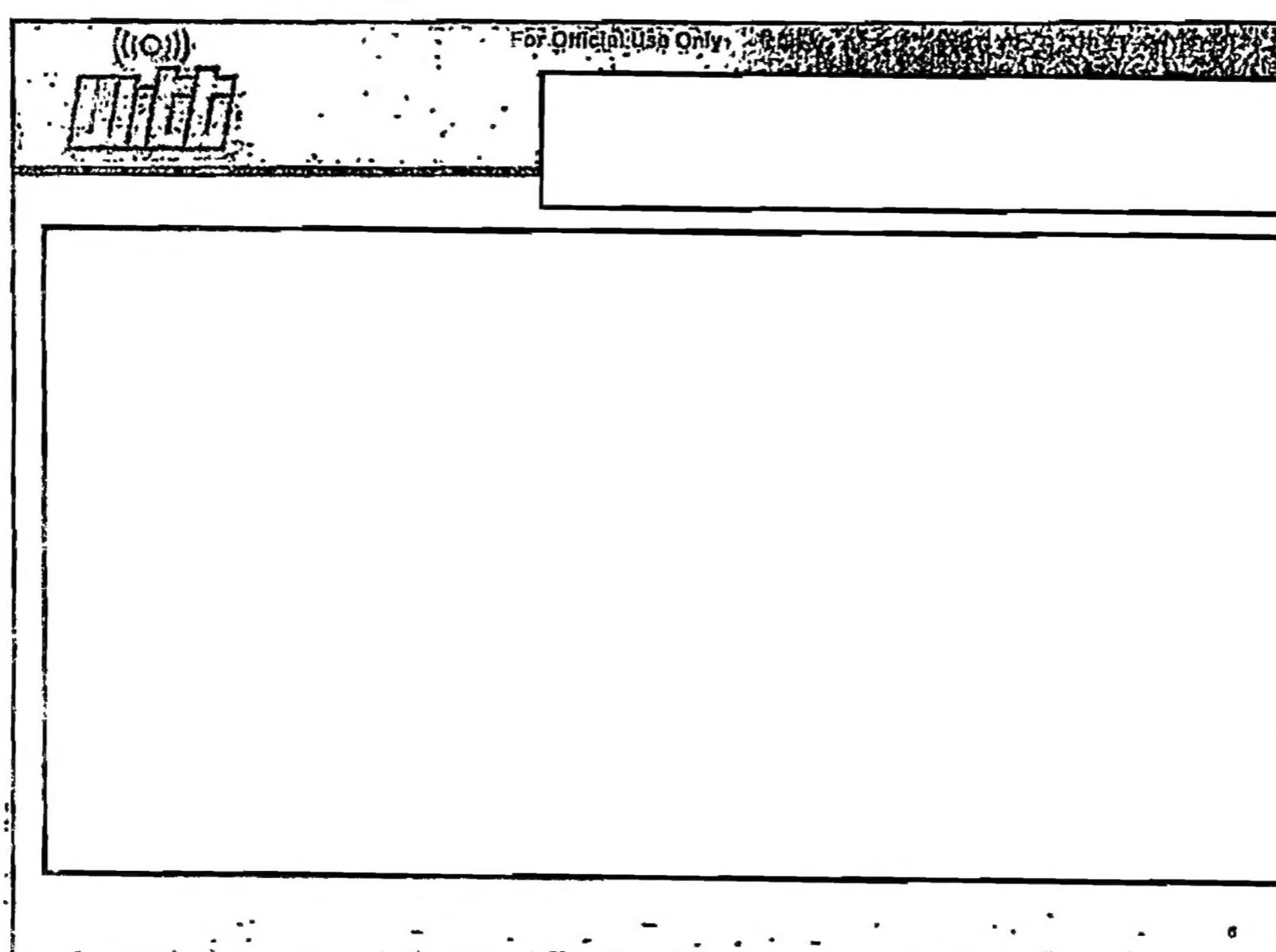
CELL/STD 004302

2

FBICELL-161



b3  
b7E

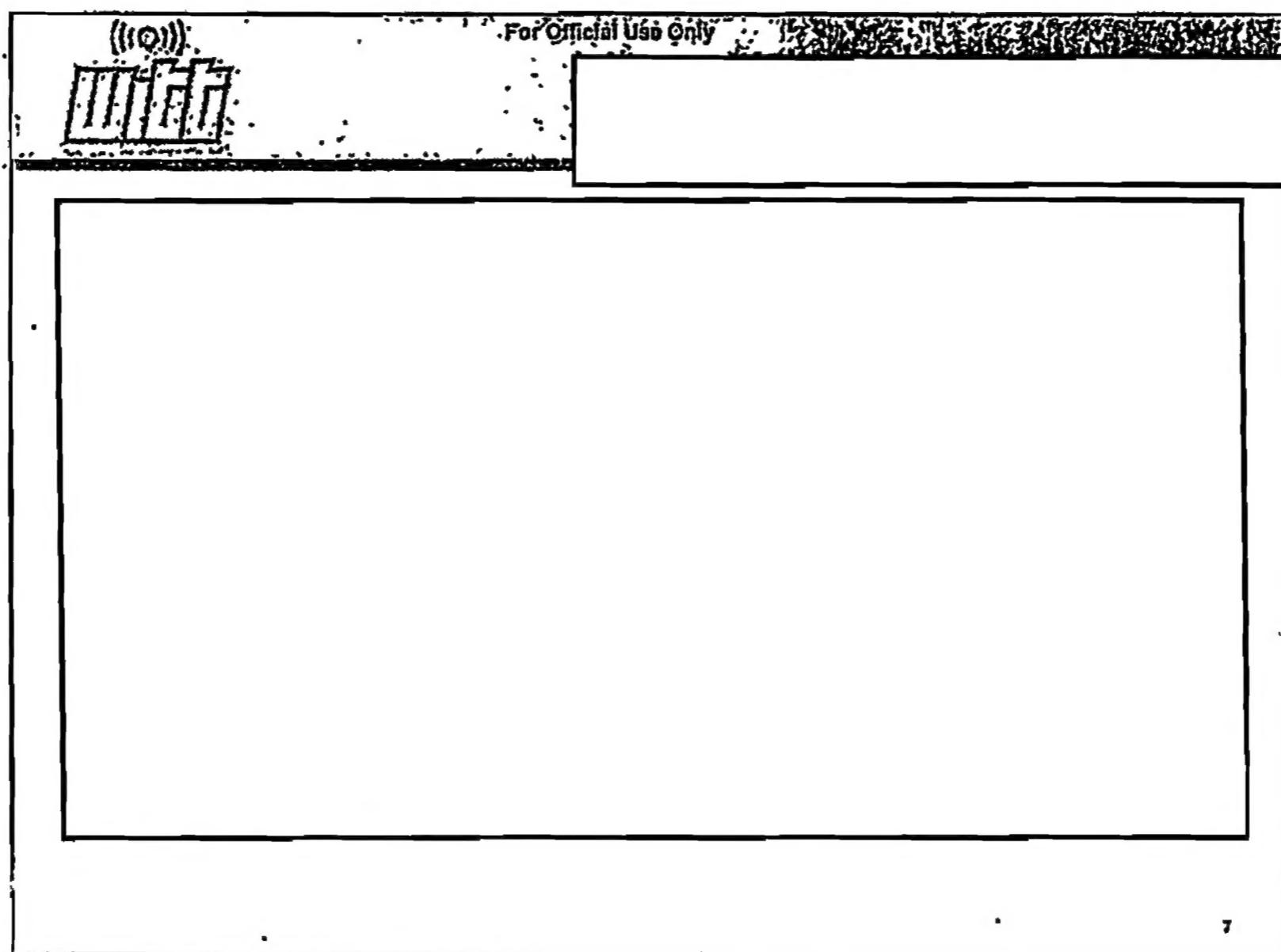


b3  
b7E

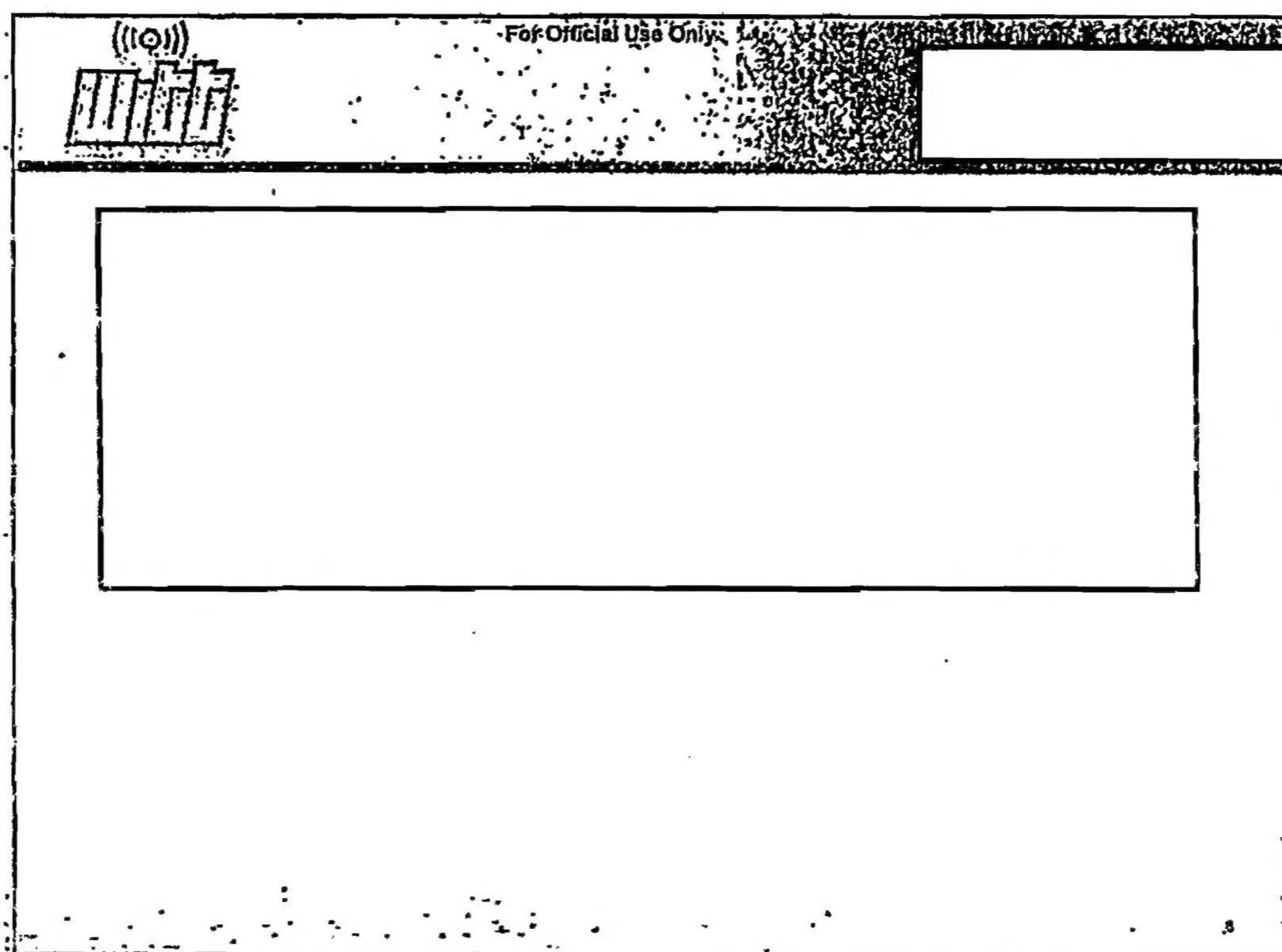
CELL/OTB 004303

3

FBICELL-162



b3  
b7E



b7E

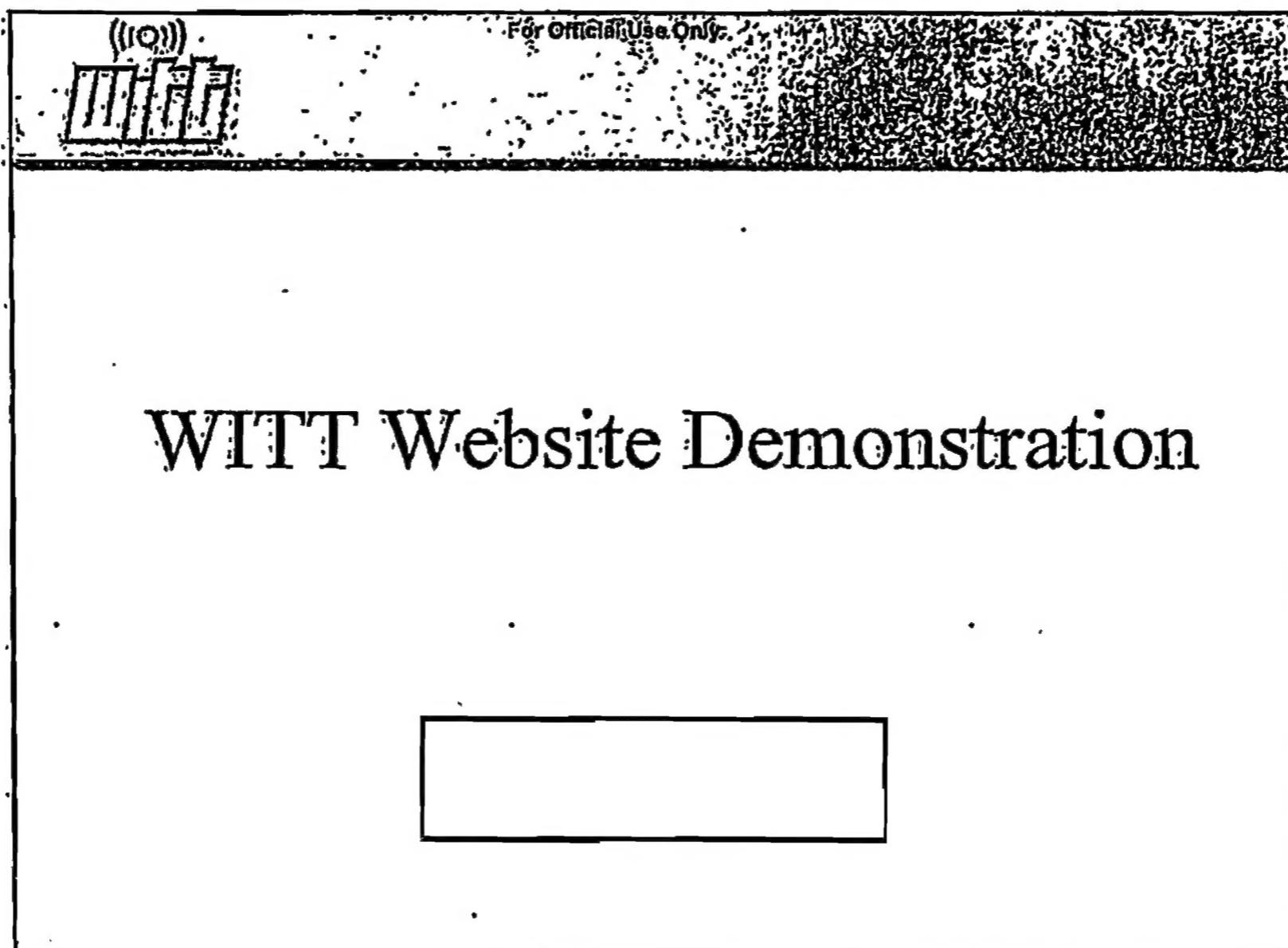
CELL/OTD 004384

4

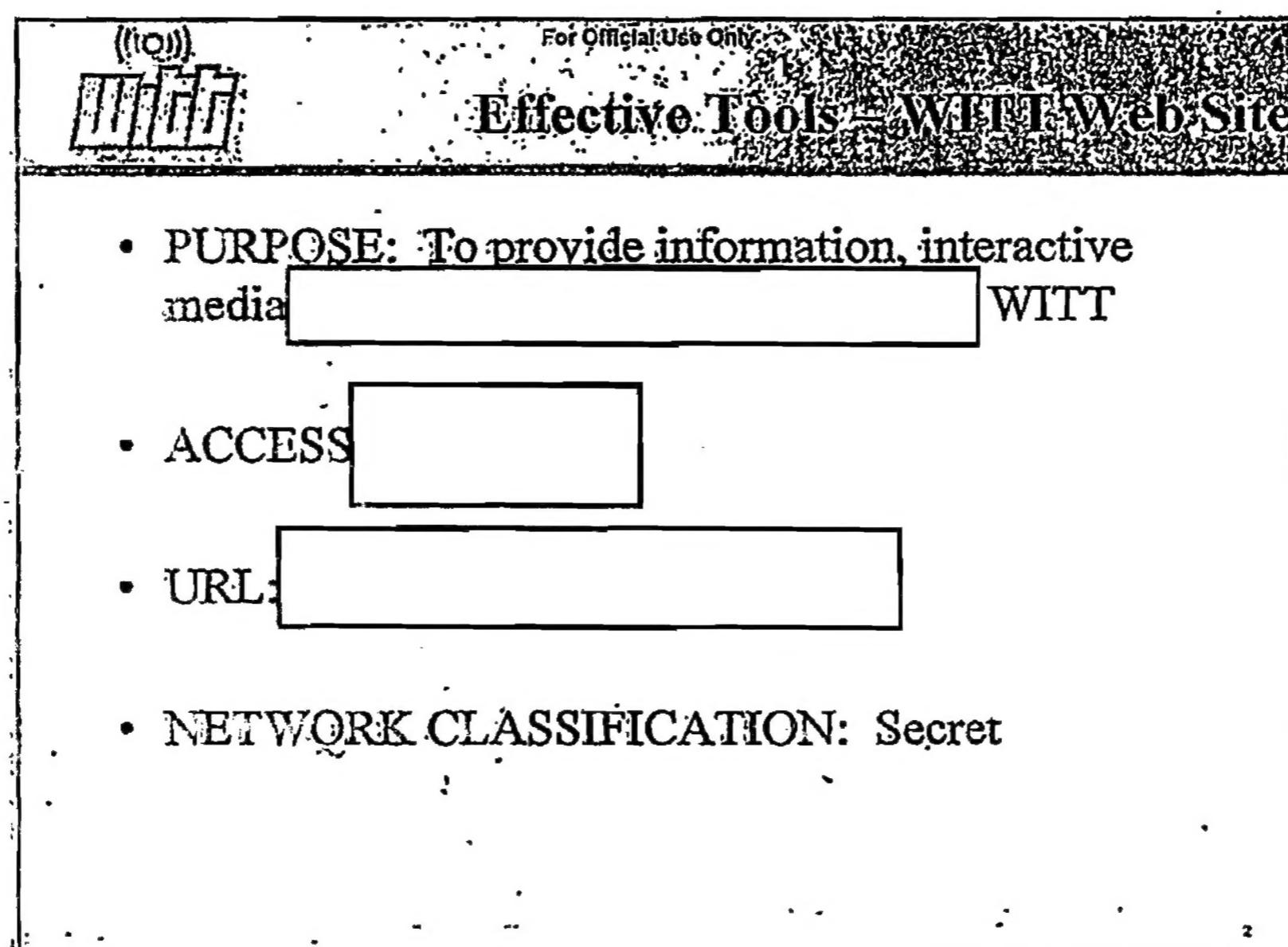
FBICELL-163

Website Demo

FBICELL-164



b7E

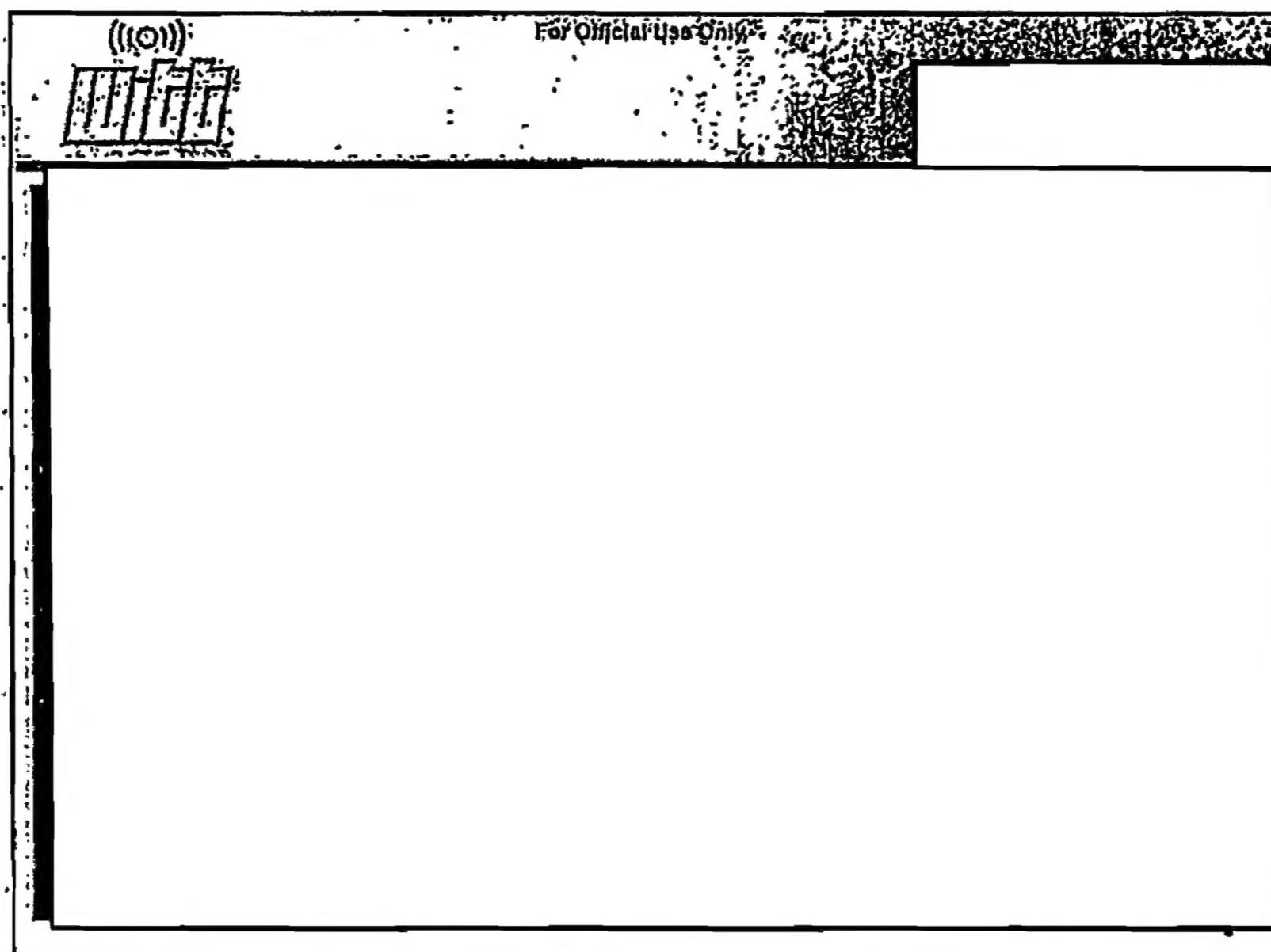


b7E

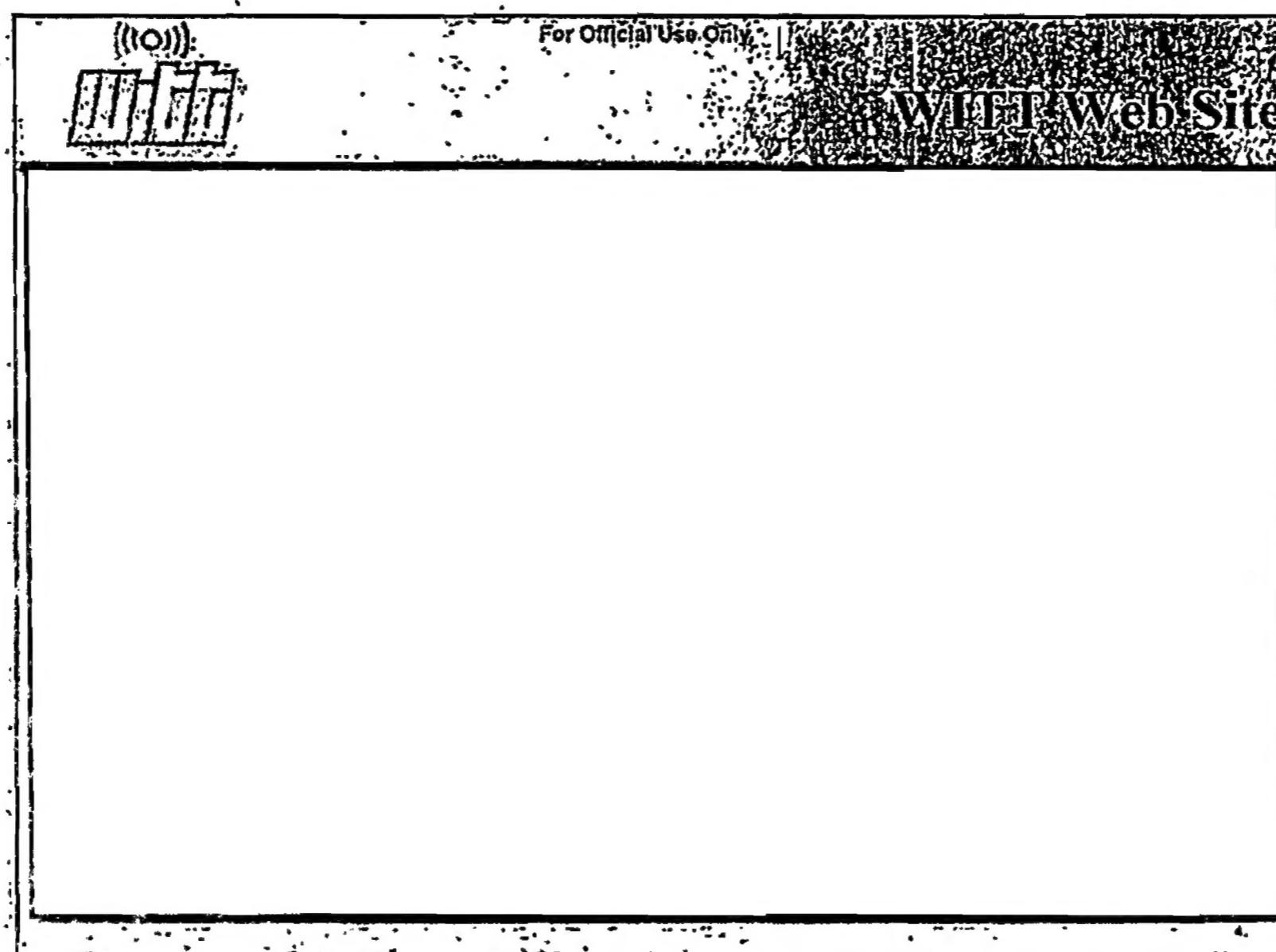
CELL/OTD 004305

1

FBICELL-165



b6  
b7C  
b7E

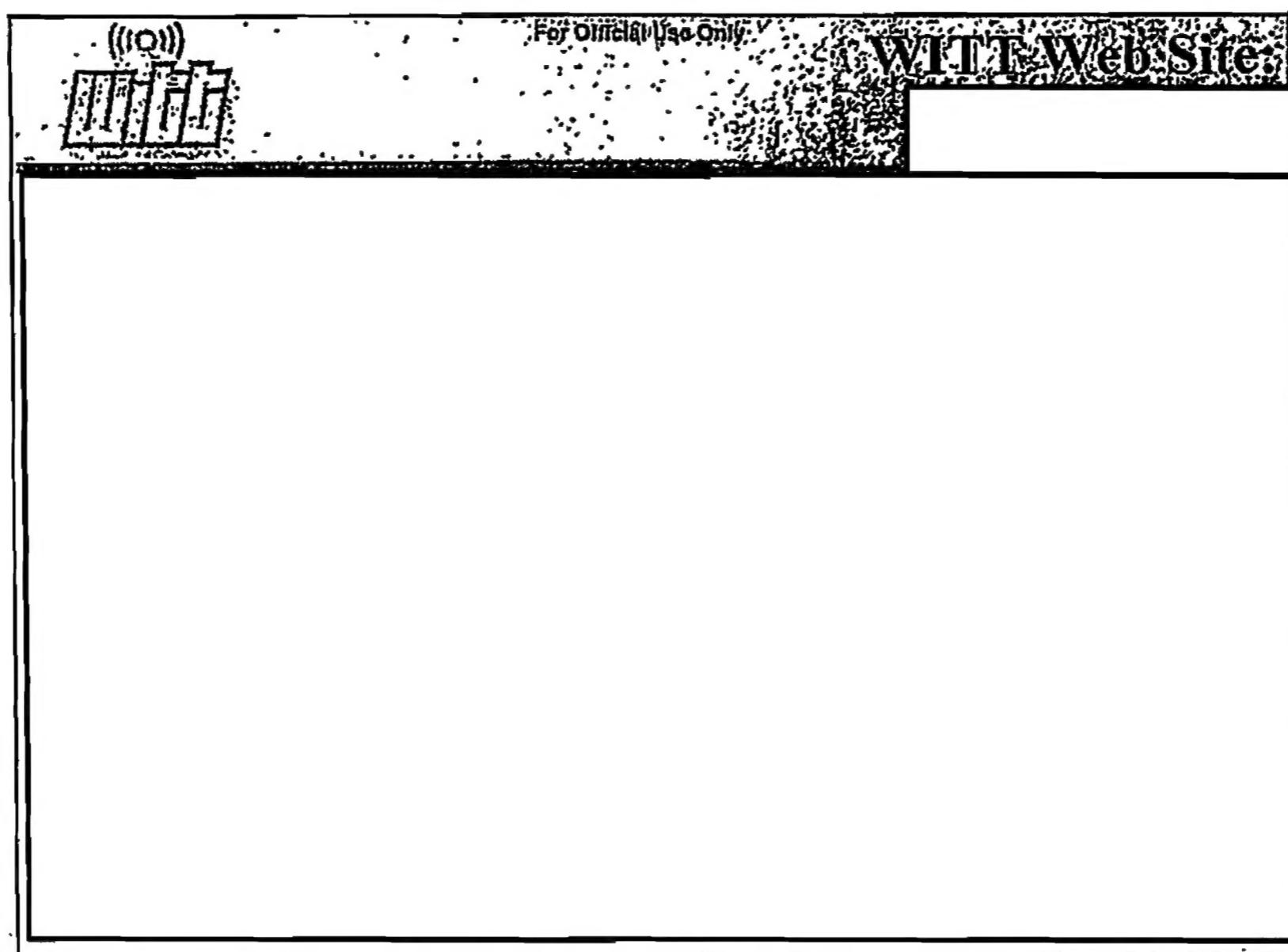


b6  
b7C  
b7E

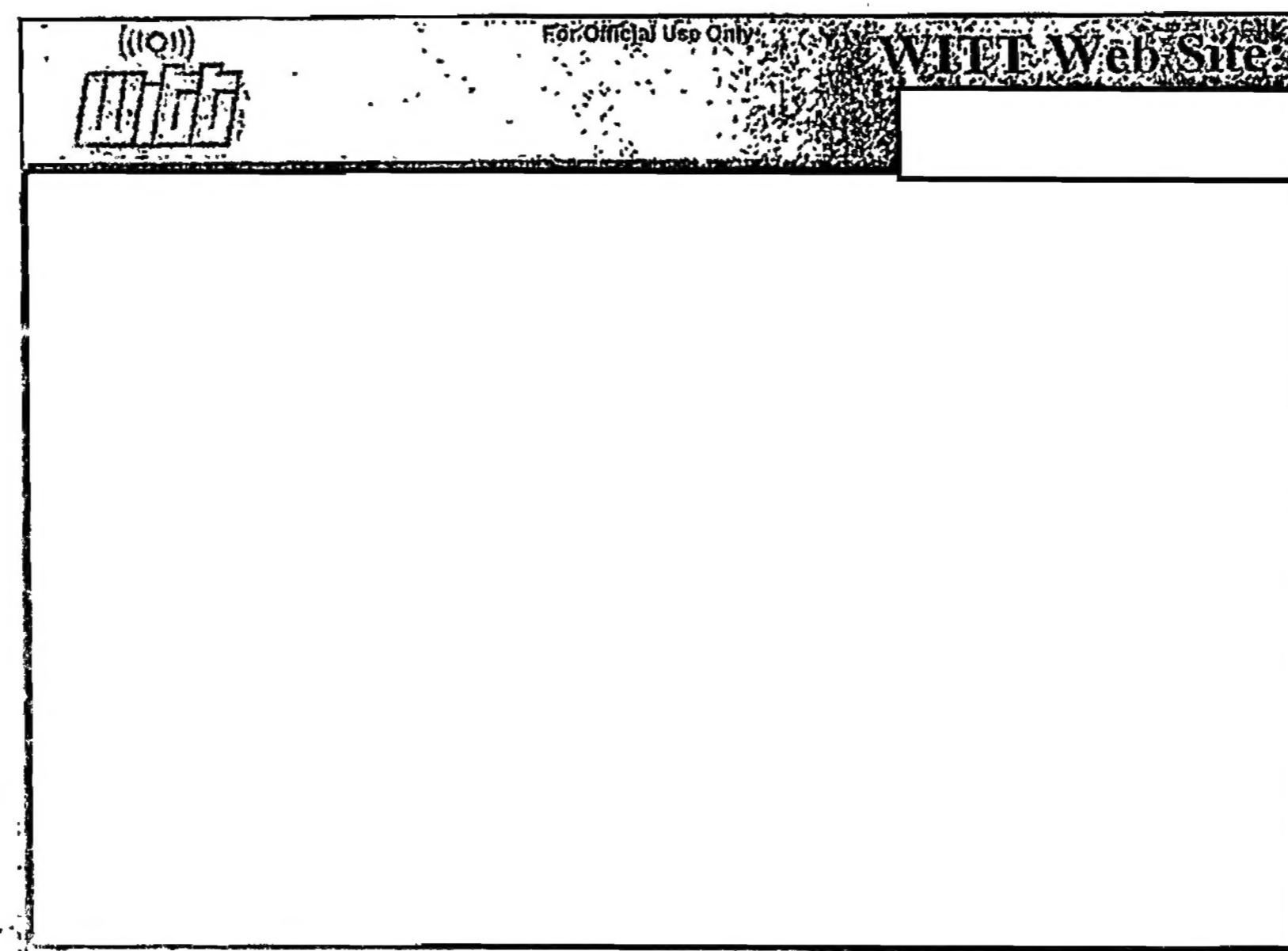
CELL/STD 0043

2

FBICELL-166



b6  
b7C  
b7E

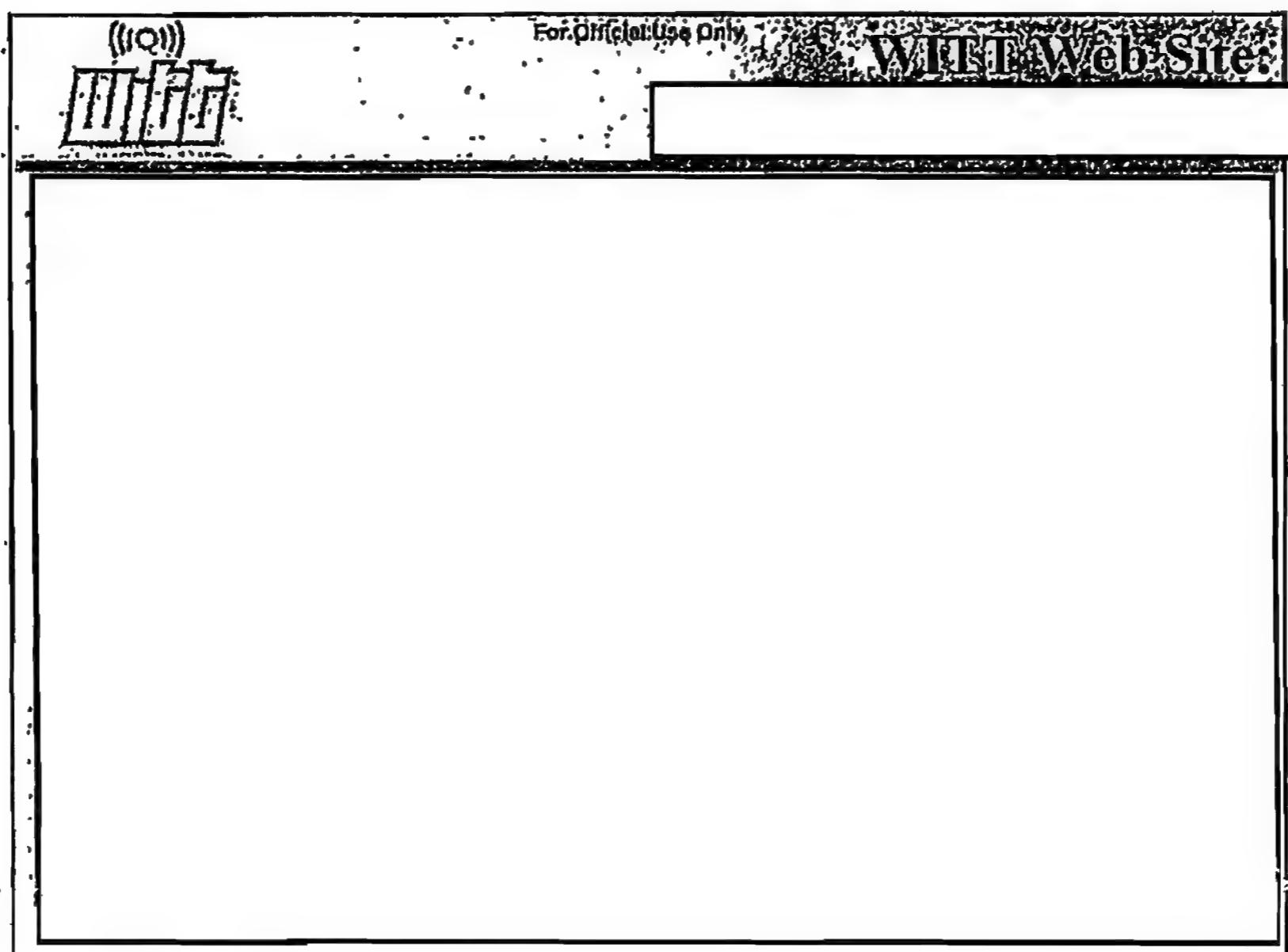


b6  
b7C  
b7E

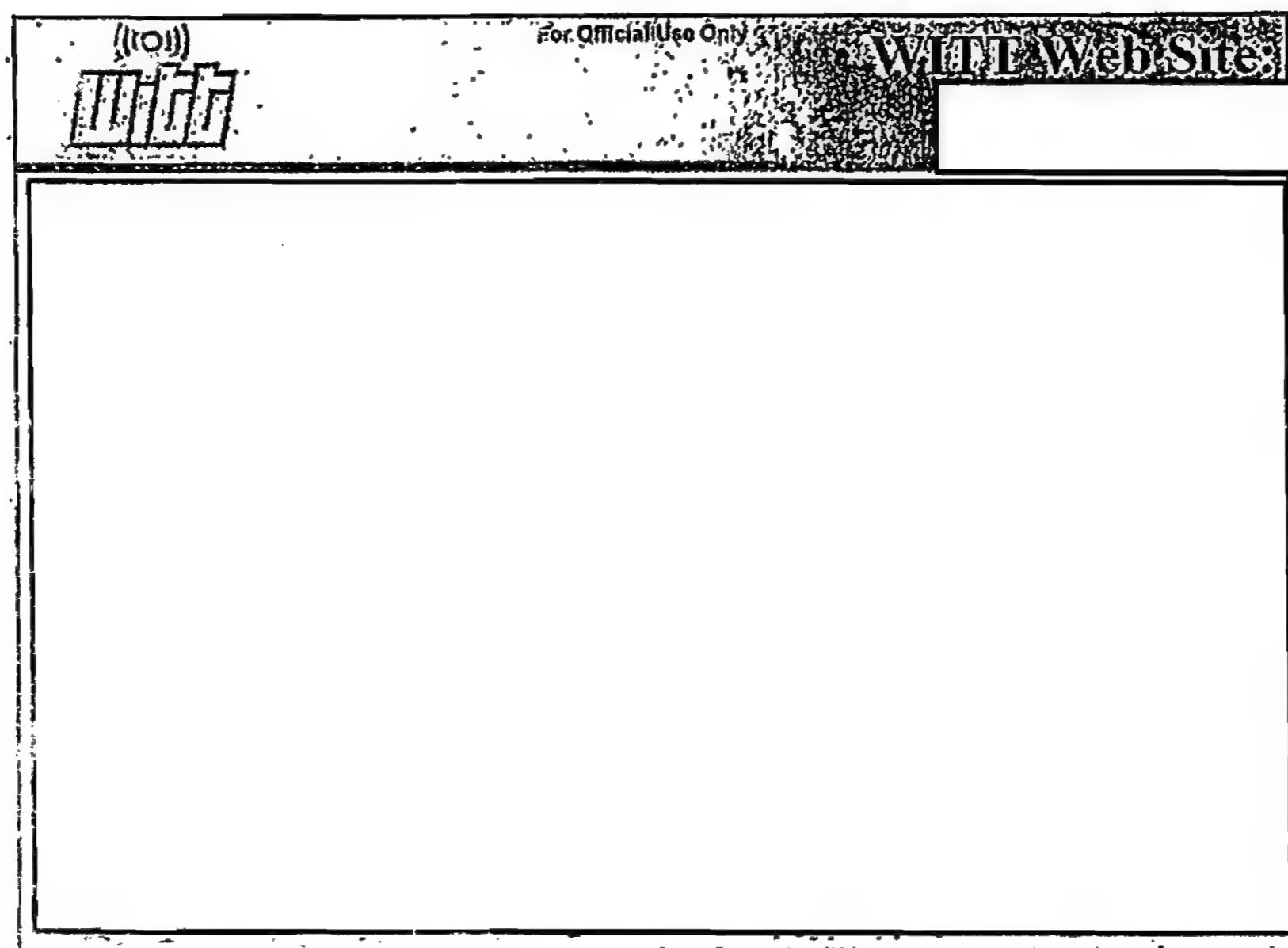
CELL/OTD 004307

3

FBICELL-167



b7E  
b6  
b7C  
b3

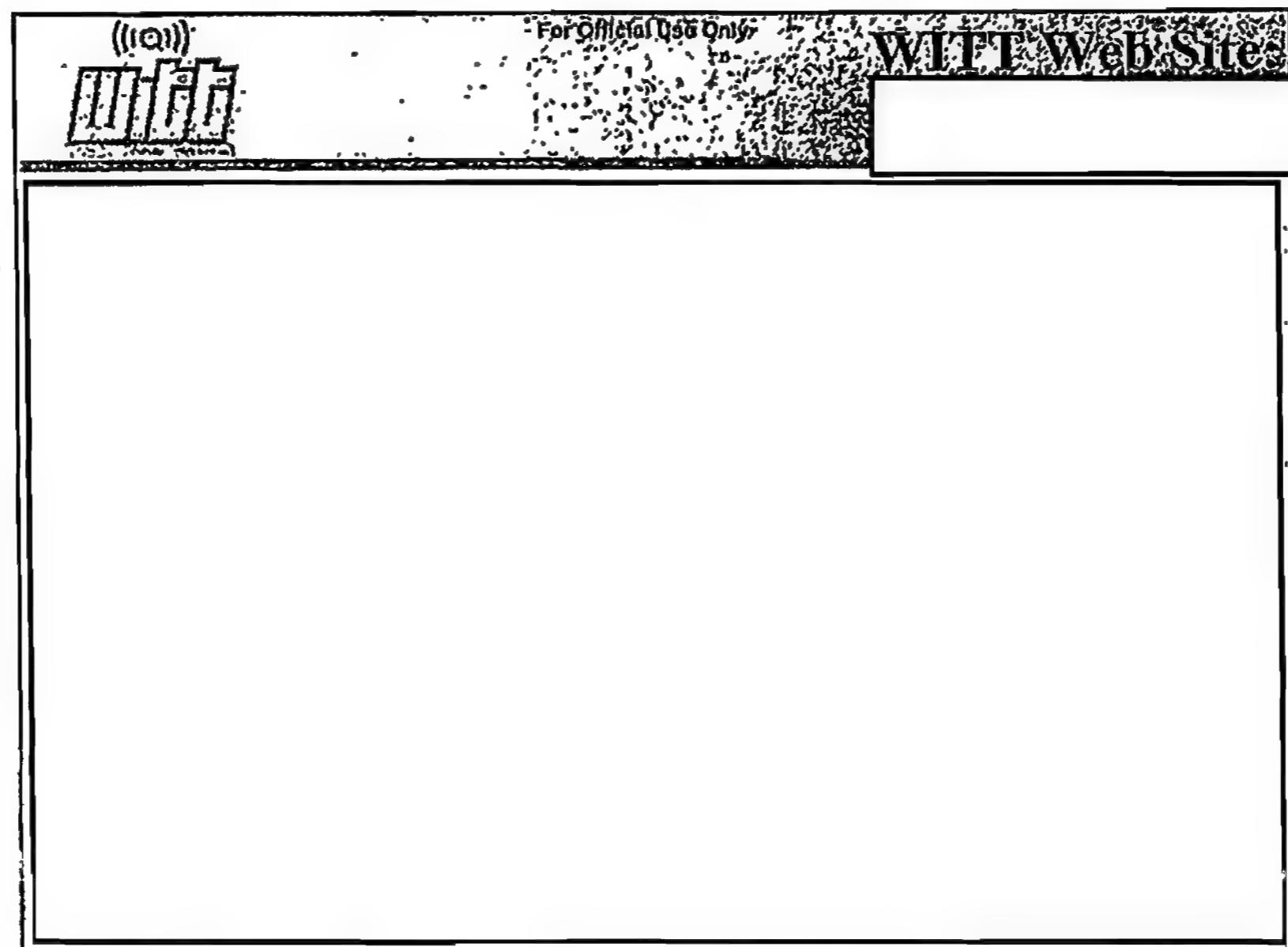


b6  
b7C  
b7E  
b3

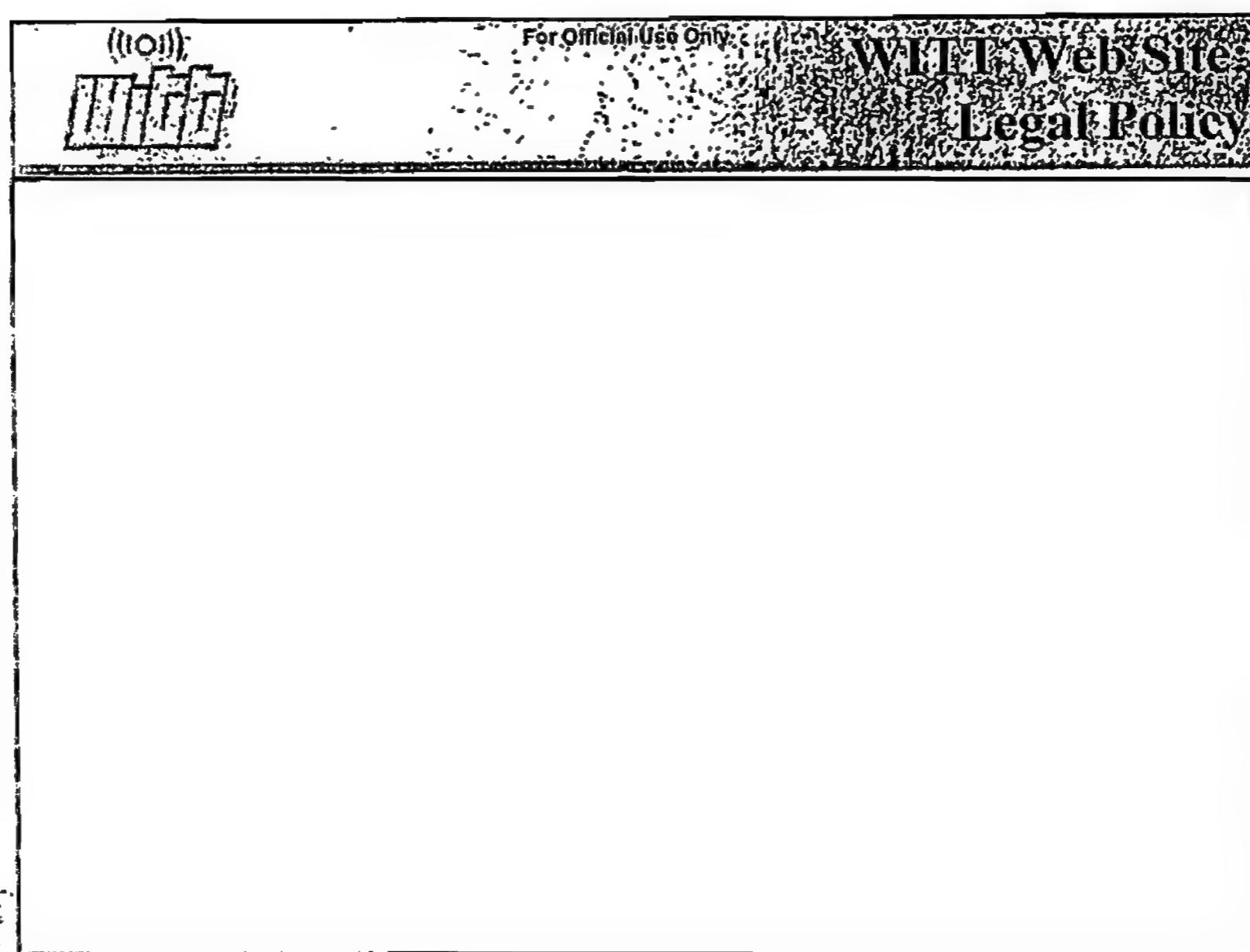
CELL/STD 004308

4

FBICELL-168



b7E



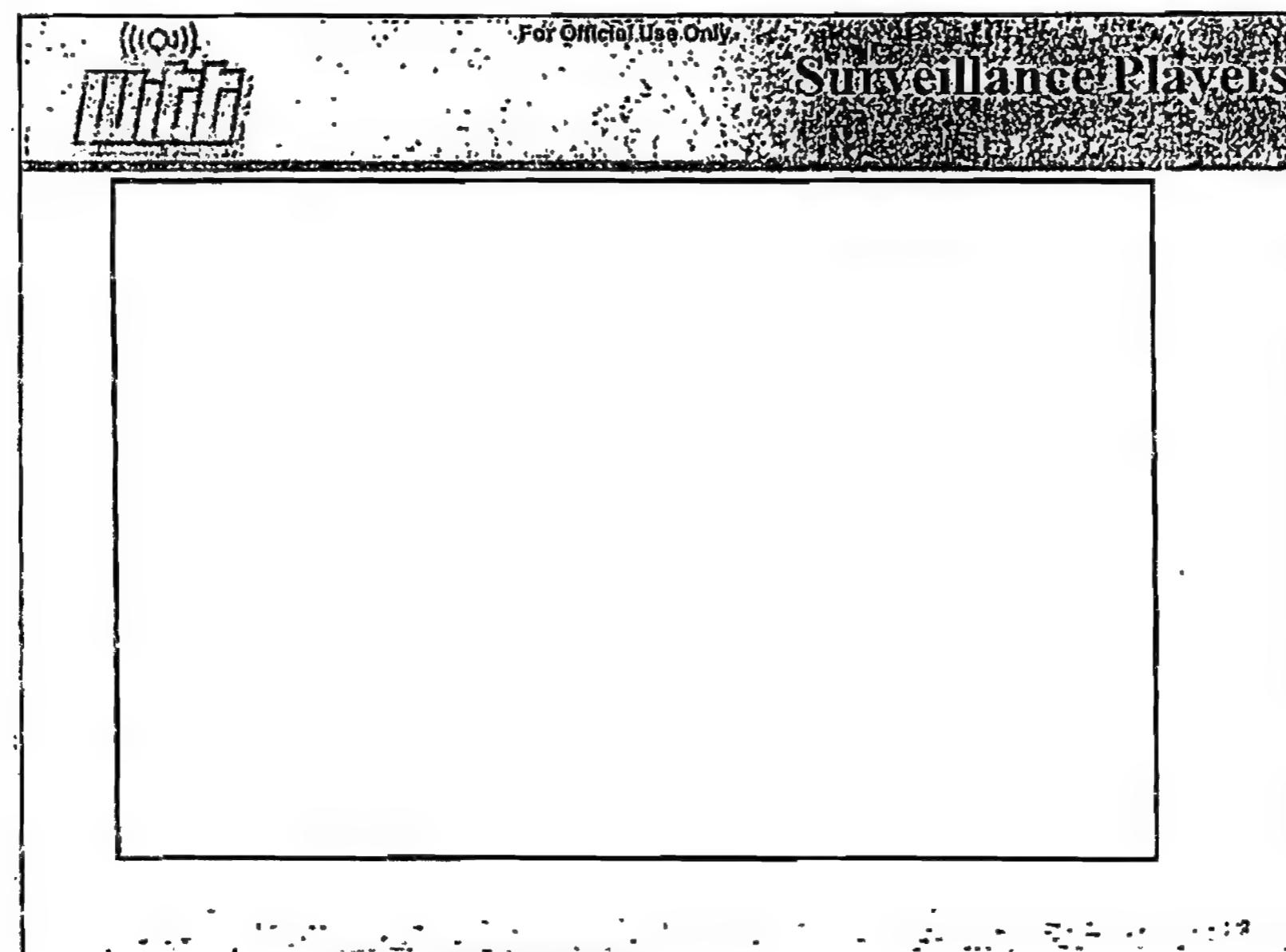
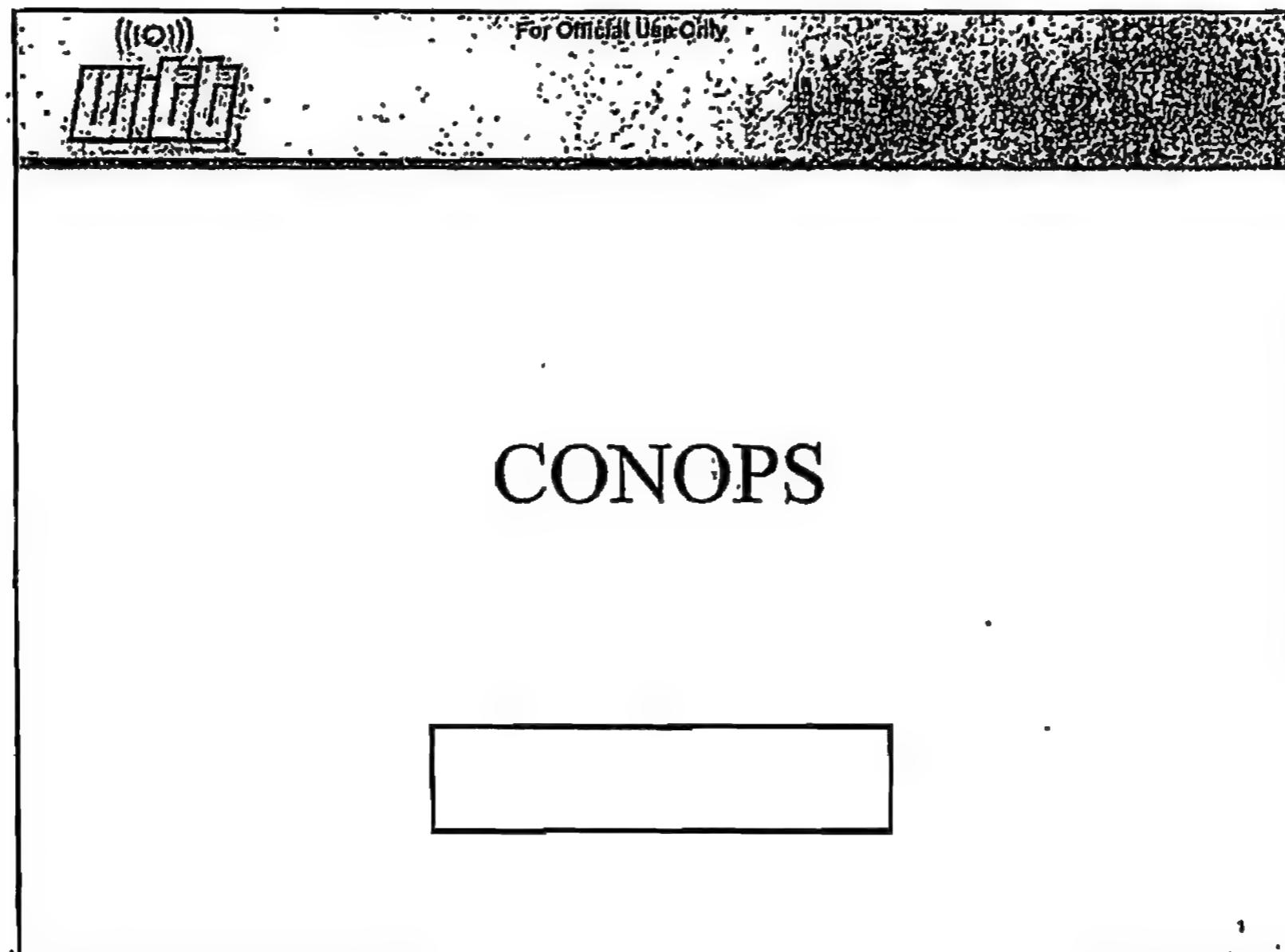
b7E

CELL/OTD 004389

5

FBICELL-169

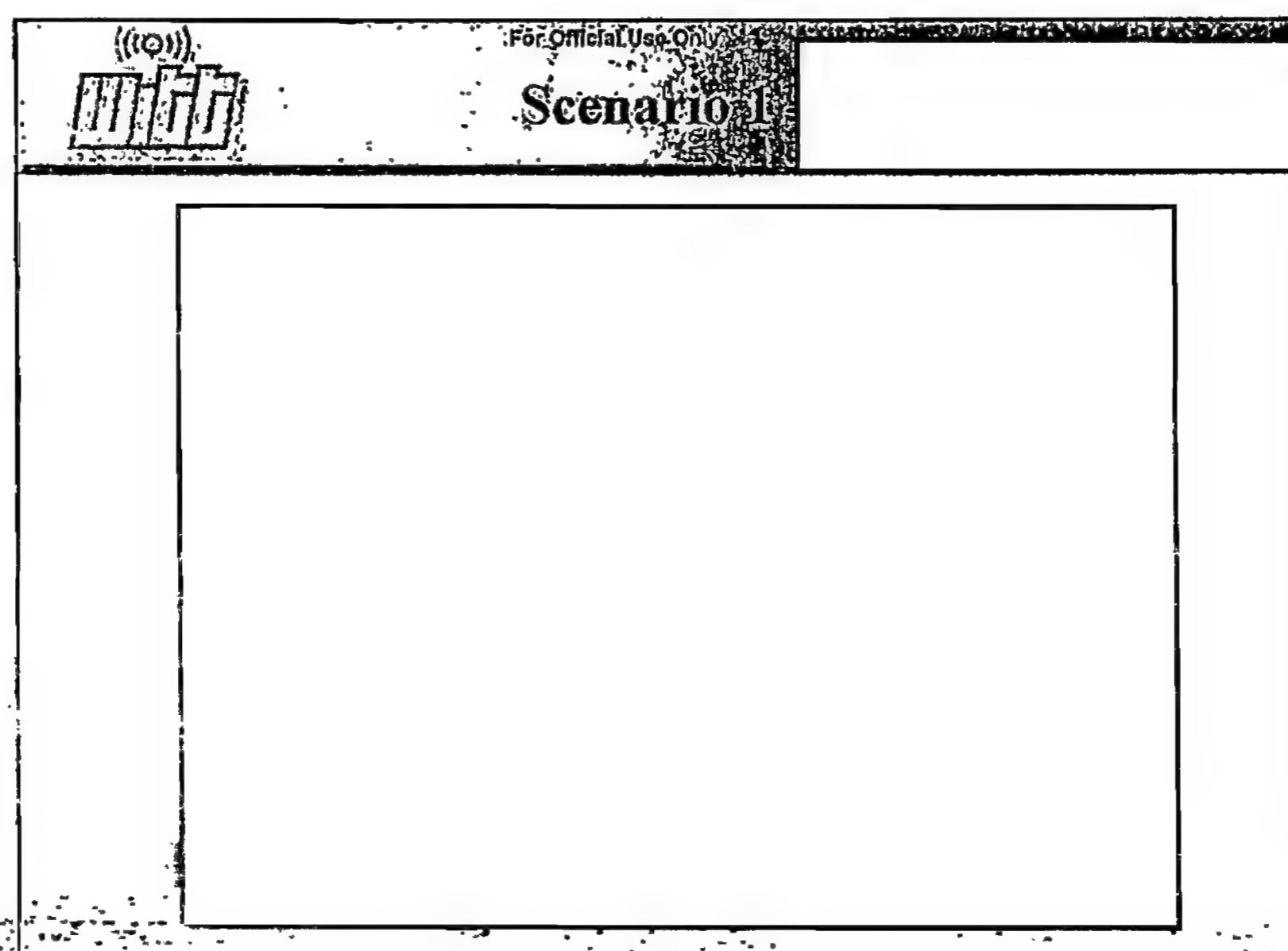
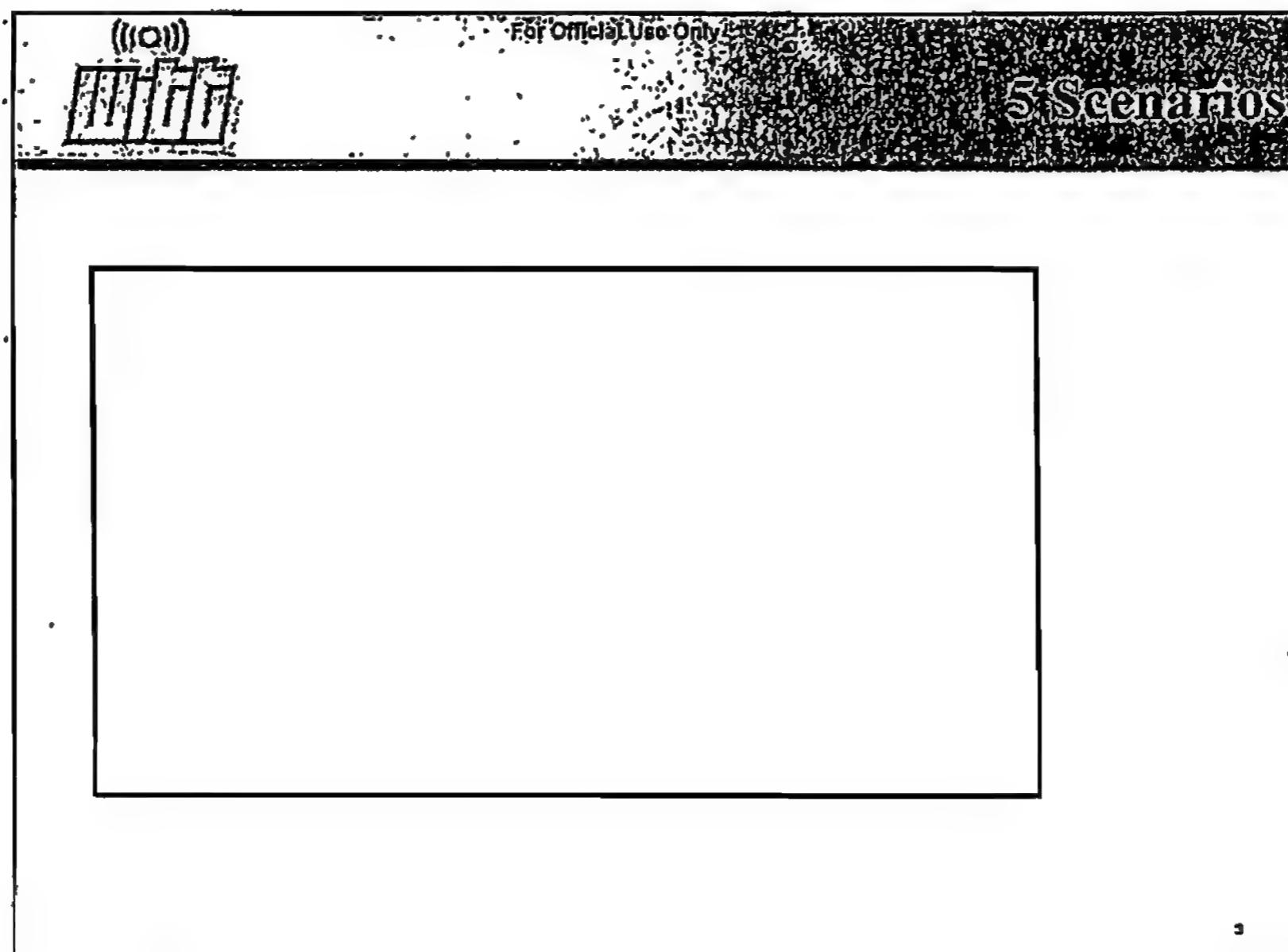




CELL/OTD 004310

1

FBICELL-171



CELL/OTD 00436

2

FBICELL-172

((O))

For Official Use Only

Scenario 1

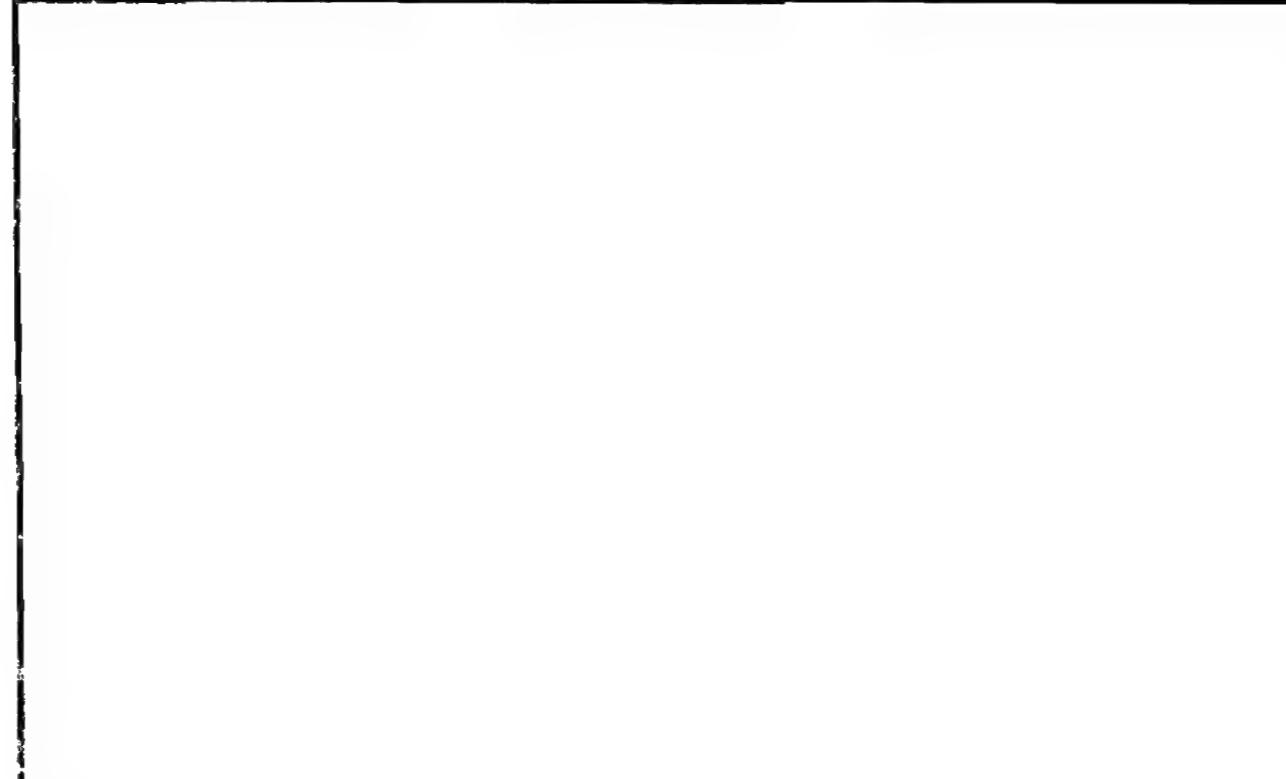


b3  
b7E

((O))

For Official Use Only

Scenario 2



b3  
b7E

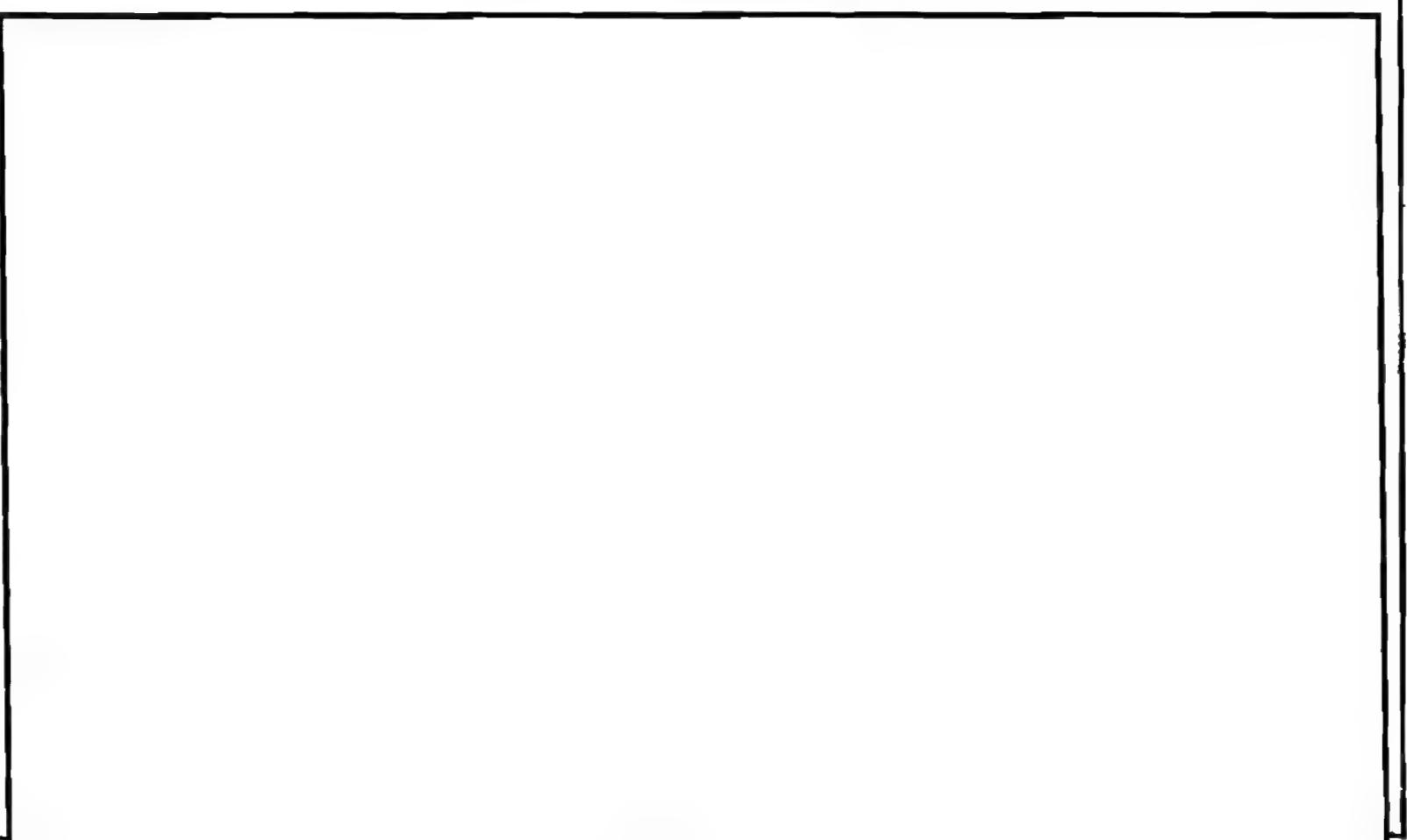
CELL/OTD 904312

3

FBICELL-173

((O)) For Official Use Only

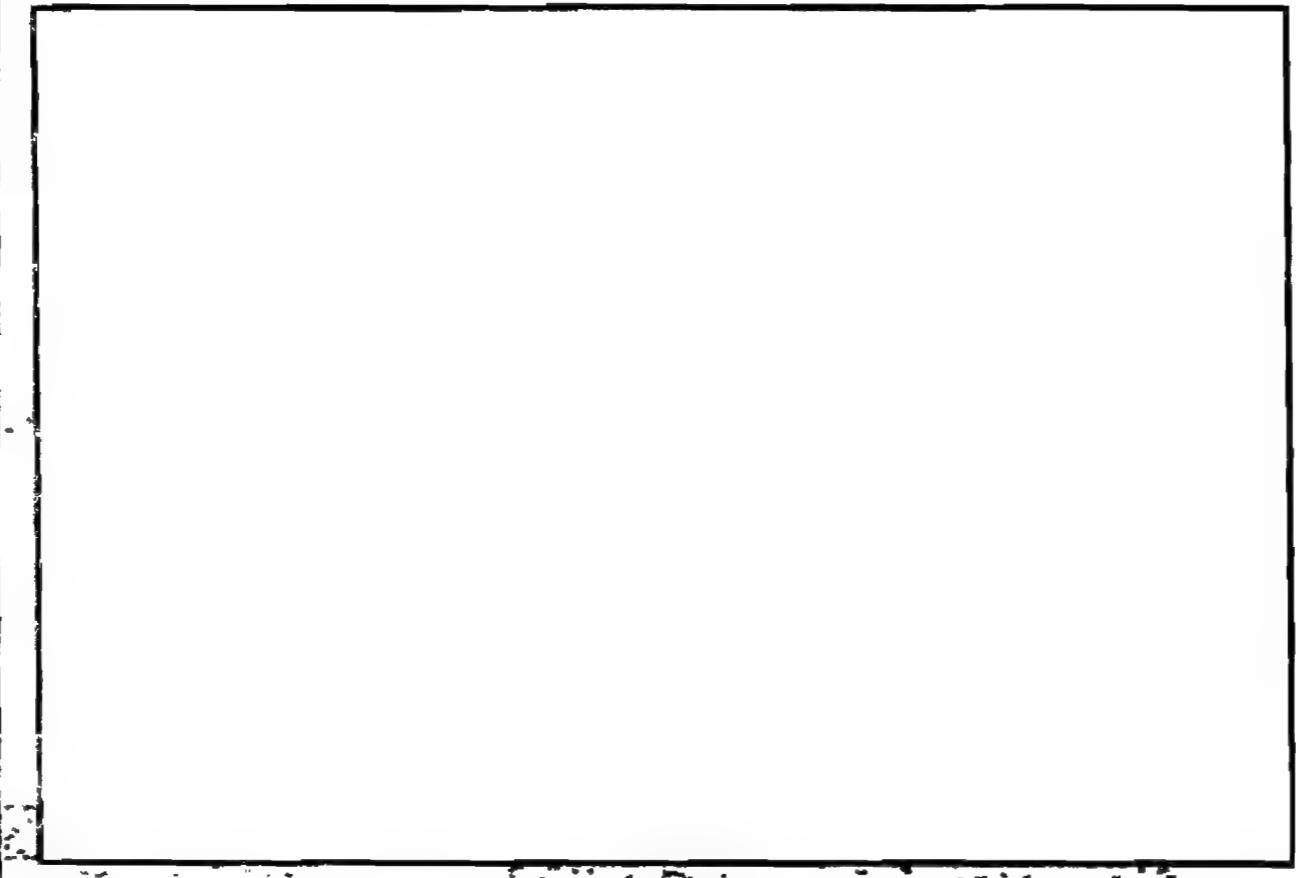
Scenario 2



b3  
b7E

((O)) For Official Use Only

Scenario 3



b3  
b7E

CELL/STD 004343

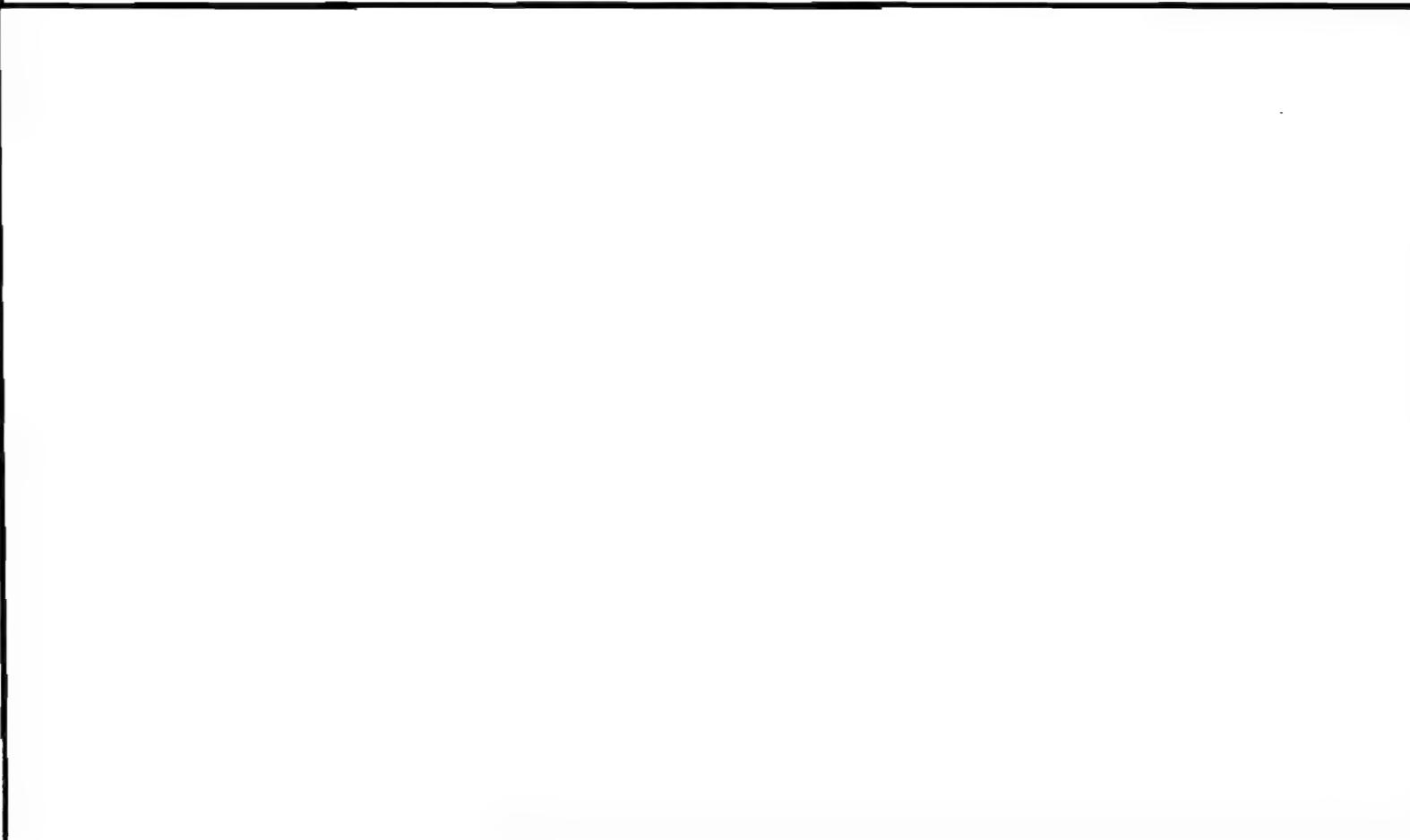
4

FBICELL-174

(((Q)))

For Official Use Only

Scenario 3

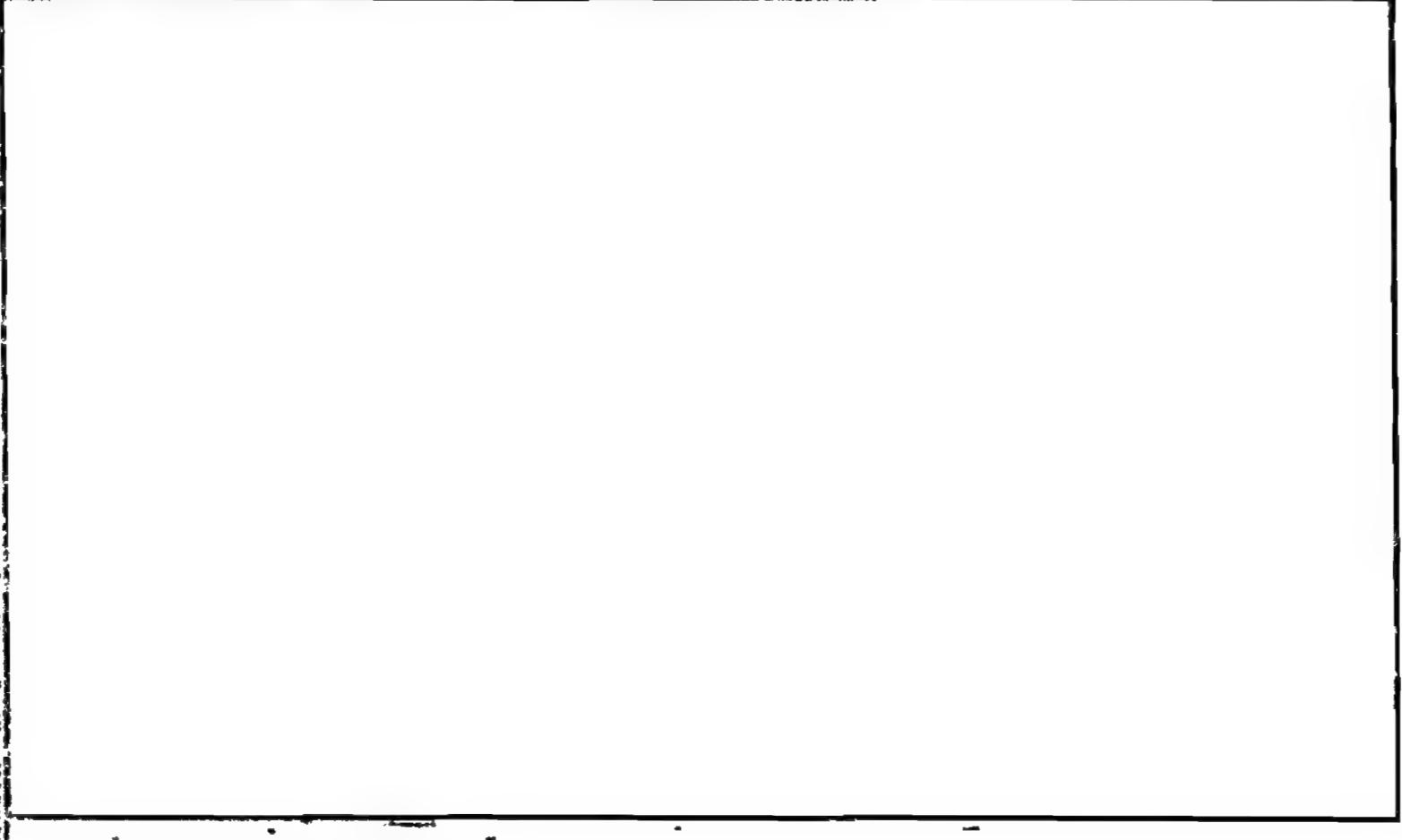


b3  
b7E

(((Q)))

For Official Use Only

Scenario 4

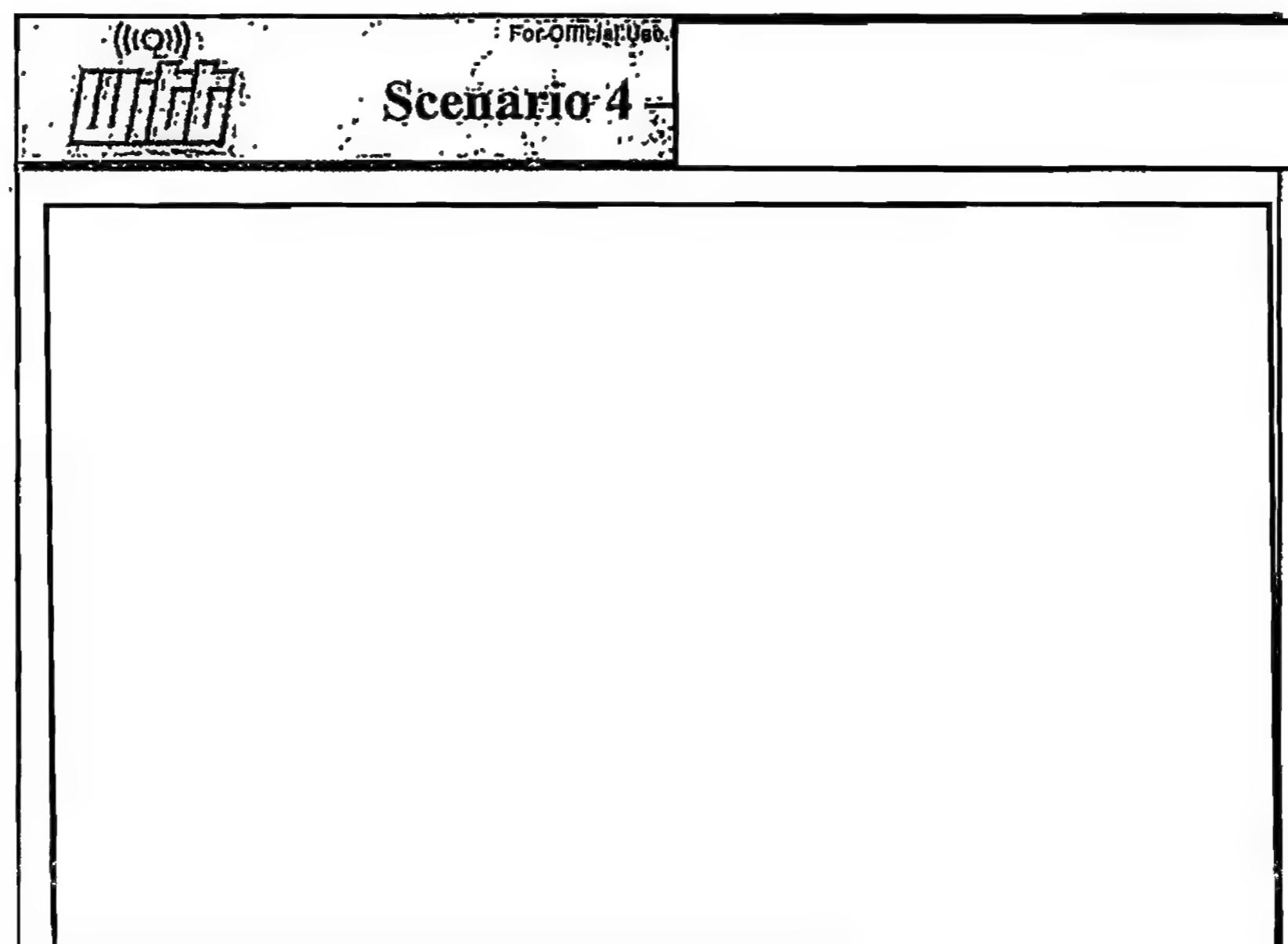


b3  
b7E

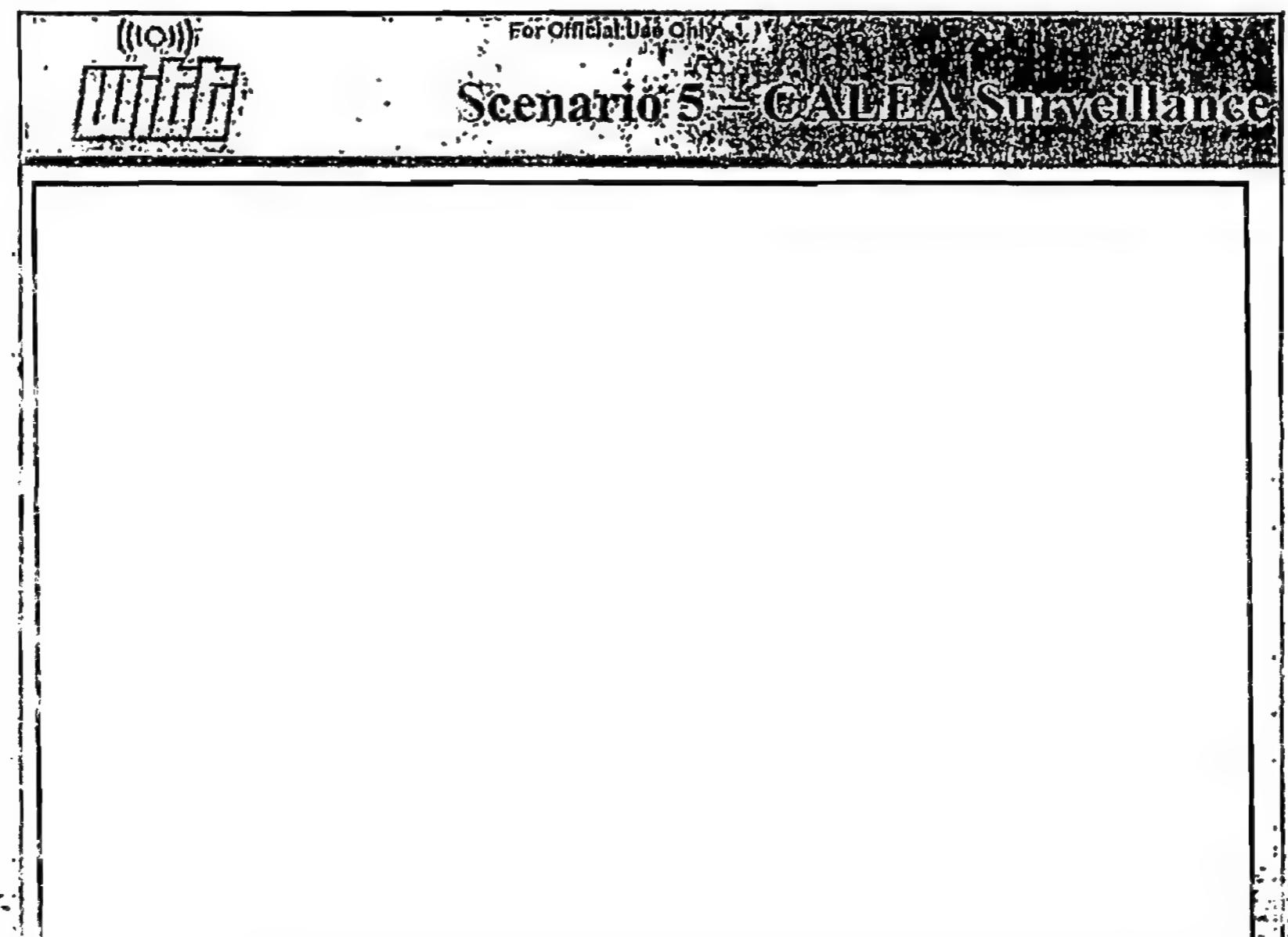
CELL/STD 004314

5

FBICELL-175



b3  
b7E

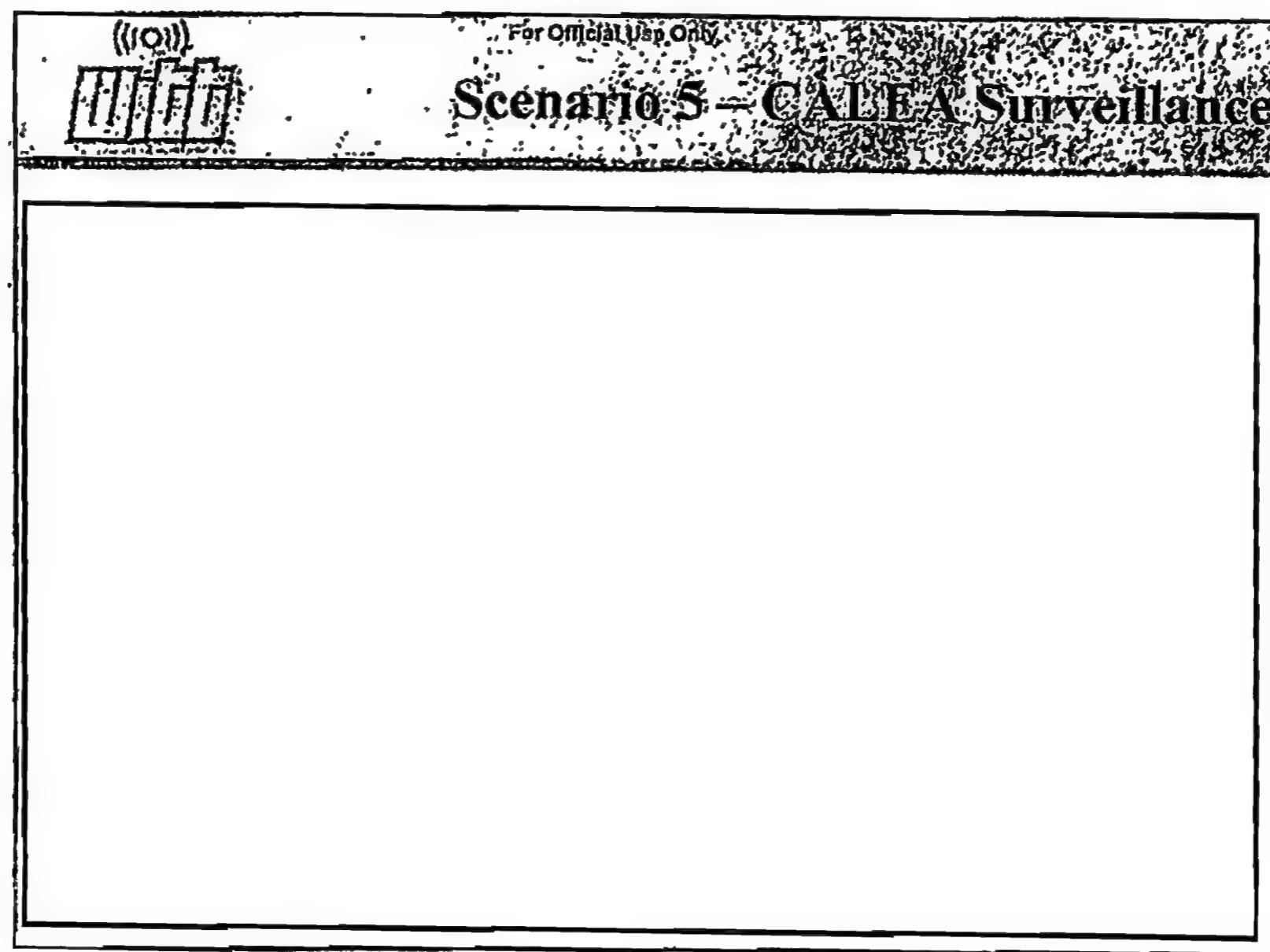


b3  
b7E

CELL/STD 004315

6

FBICELL-176



b3  
b7E

CELE/OTD 084316

7

FBICELL-177



((Q))

For Official Use Only

WITT

**Legal**

[Redacted]

b7E

((Q))

For Official Use Only

WITT

**Legal Guidelines**

- Legal considerations await the OGC's review, analysis, and approval
- Additional Legal and Policy issues being identified
- Updates and reference material will be posted on the WITT web site
- Any specific legal question, guidance, or advice should be referred to your CDC and/or to the OGC

CELL/STD 084317

1

FBICELL-179

((O))	For Official Use Only	Preliminary Issues
WFO		
<ul style="list-style-type: none"><li>• Pen Registers</li><li>• Title III</li><li>• Search Warrants</li><li>• Disclosure and Evidentiary Considerations</li><li>• Safety Issues</li><li>• [Redacted]</li><li>• [Redacted]</li></ul>		

b7E

CELL/DTD SC4318

Mobile Phone  
System

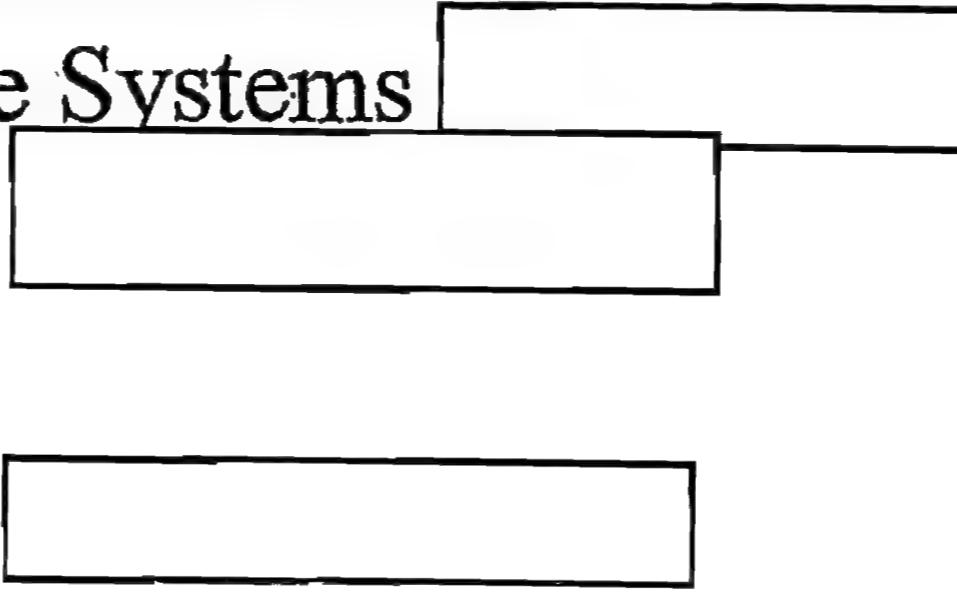


FBICELL-181

((O)) For Official Use Only

# Introduction to the Mobile Phone Systems

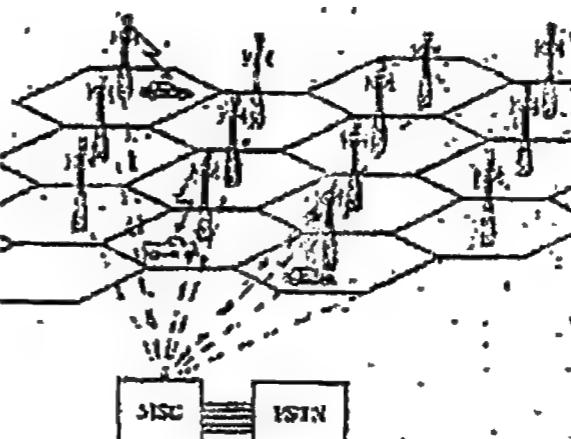
b7E



((O)) For Official Use Only

## Overview: Cellular System Concept

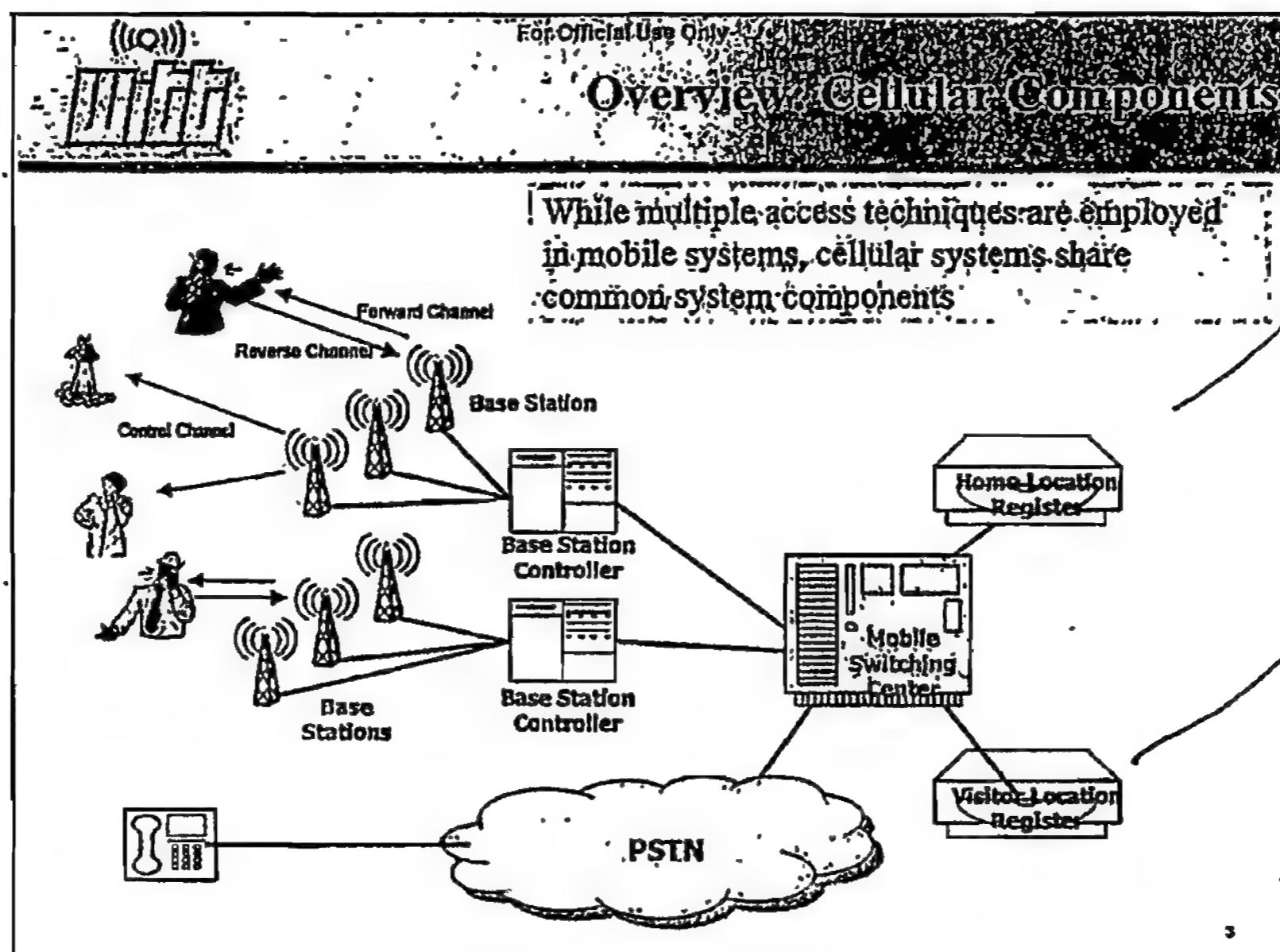
- Cellular System allows the reuse of spectrum within a region by employing centrally connected base stations
- Each base station wirelessly connects to multiple mobiles within a designated geographic area (cell)
- Base stations connect to a Mobile Switching Center (MSC) and then to the Public Switched Telephone Network (PSTN)
- The system allows
  - Reuse of spectrum in regions, increasing the capacity of the system over a trunked radio system
  - Mobility of users in the system without loss of connectivity.



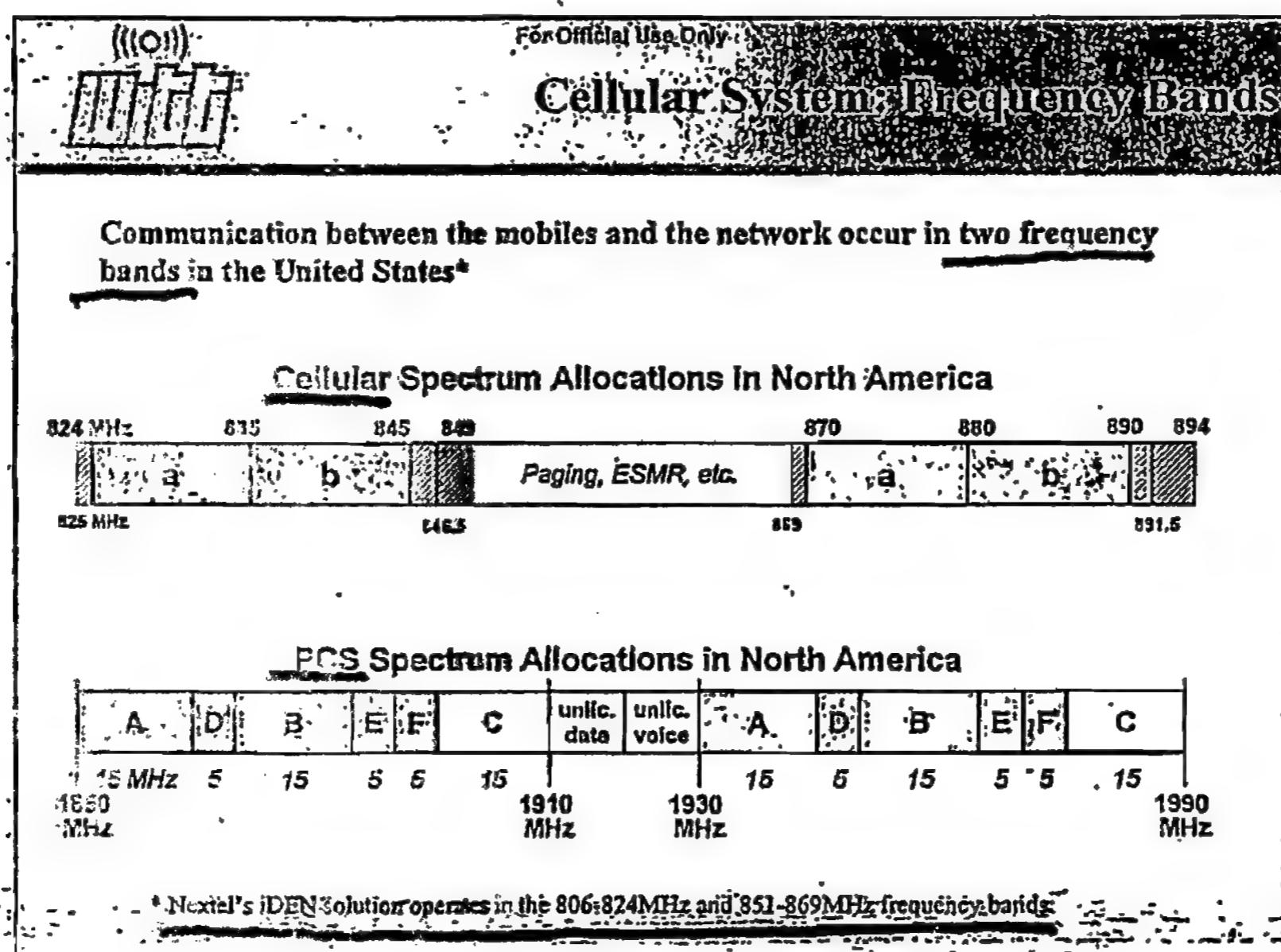
CELL/OTB 004325

1

FBICELL-182



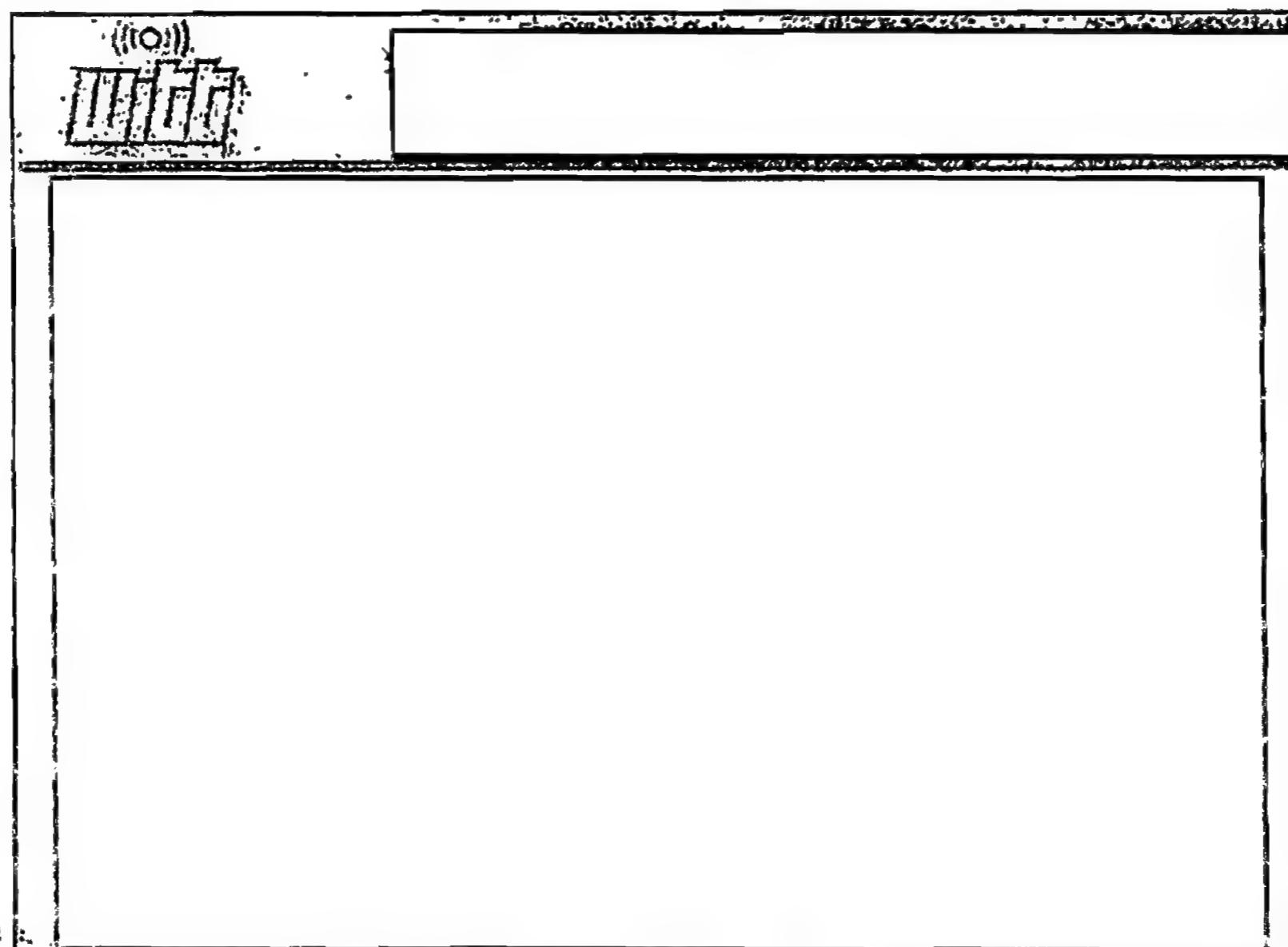
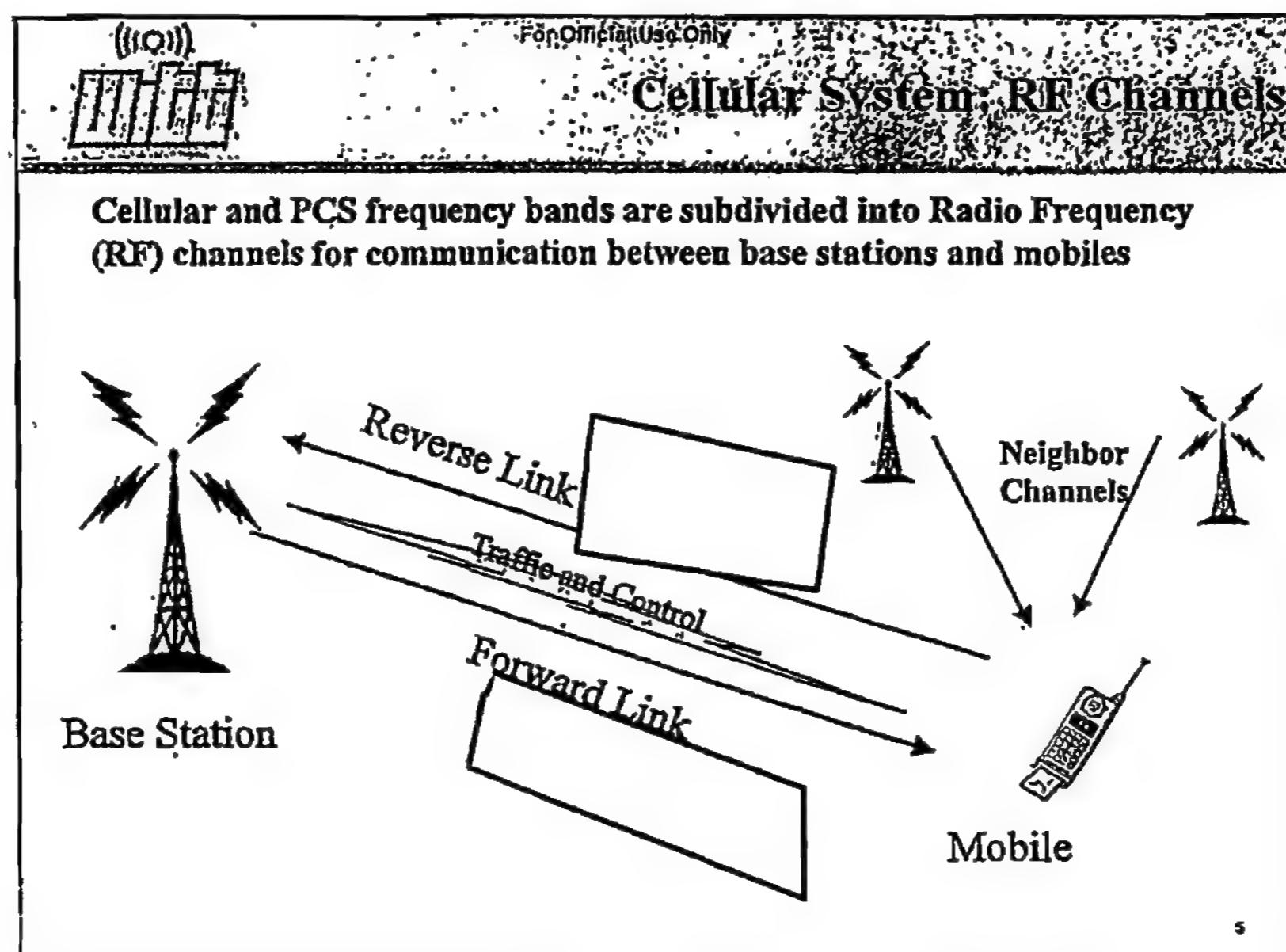
b7E



CELL/STD 004326

2

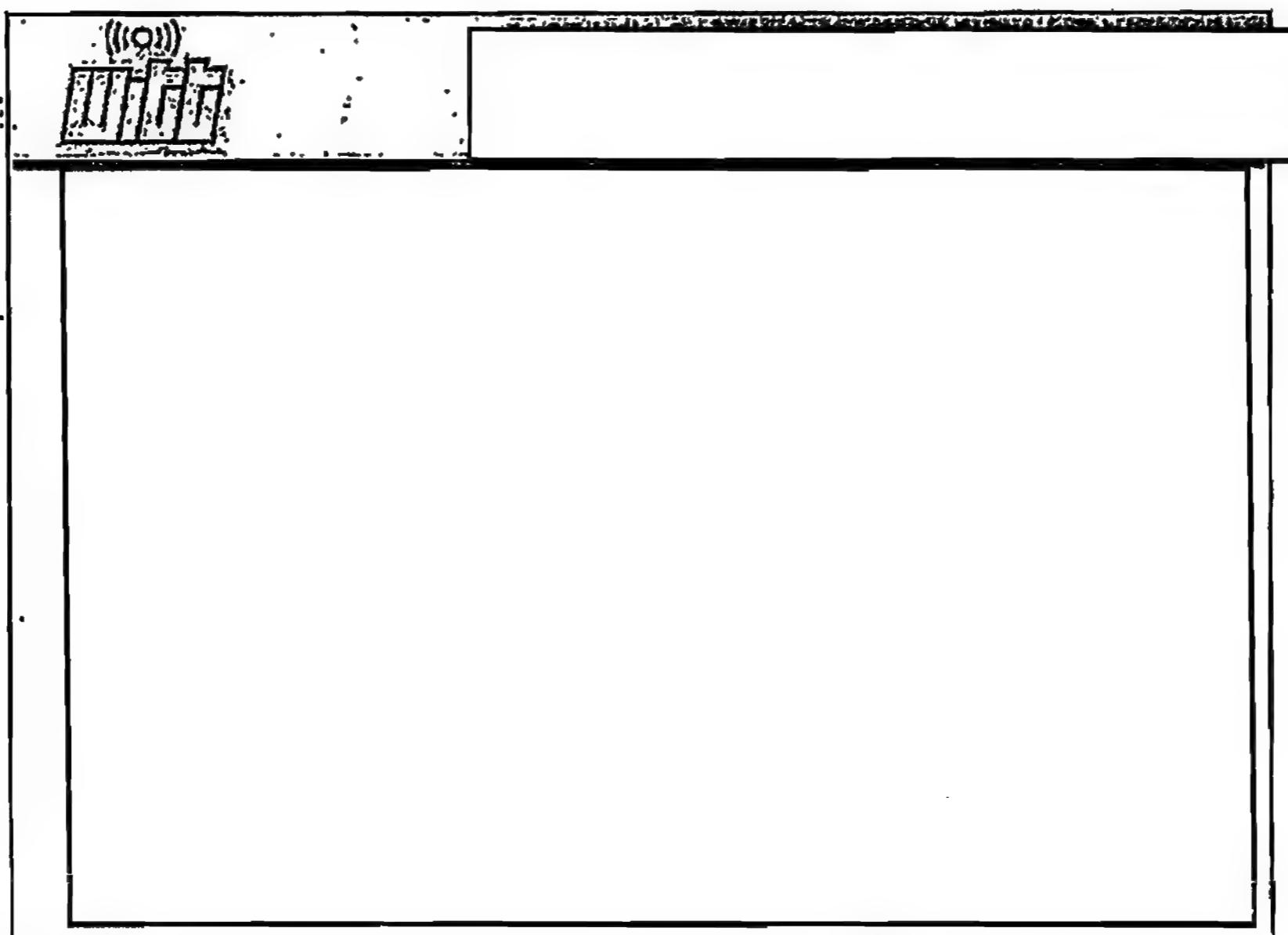
FBICELL-183



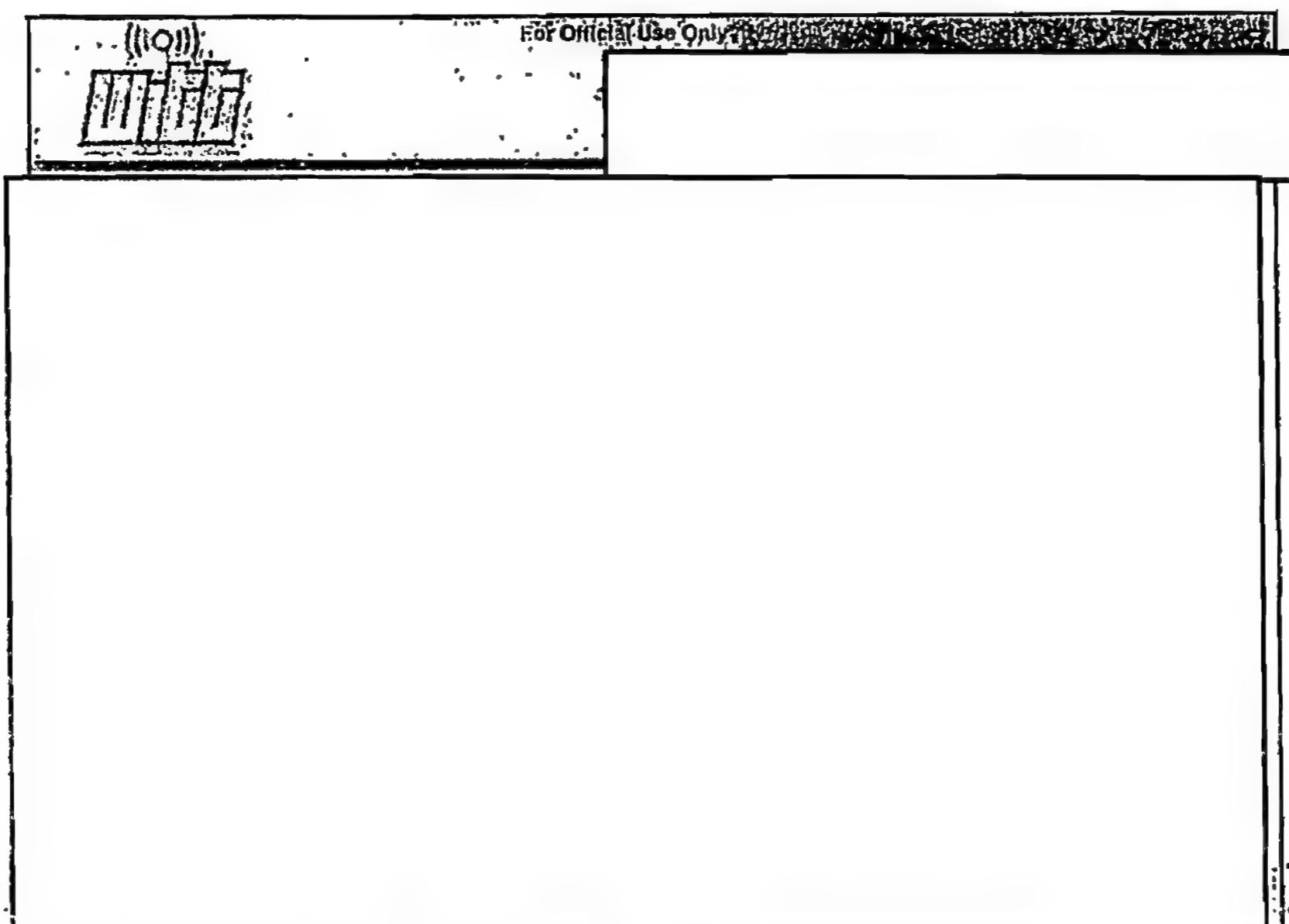
CELL/OTD 004327

3

FBICELL-184



b3  
b7E

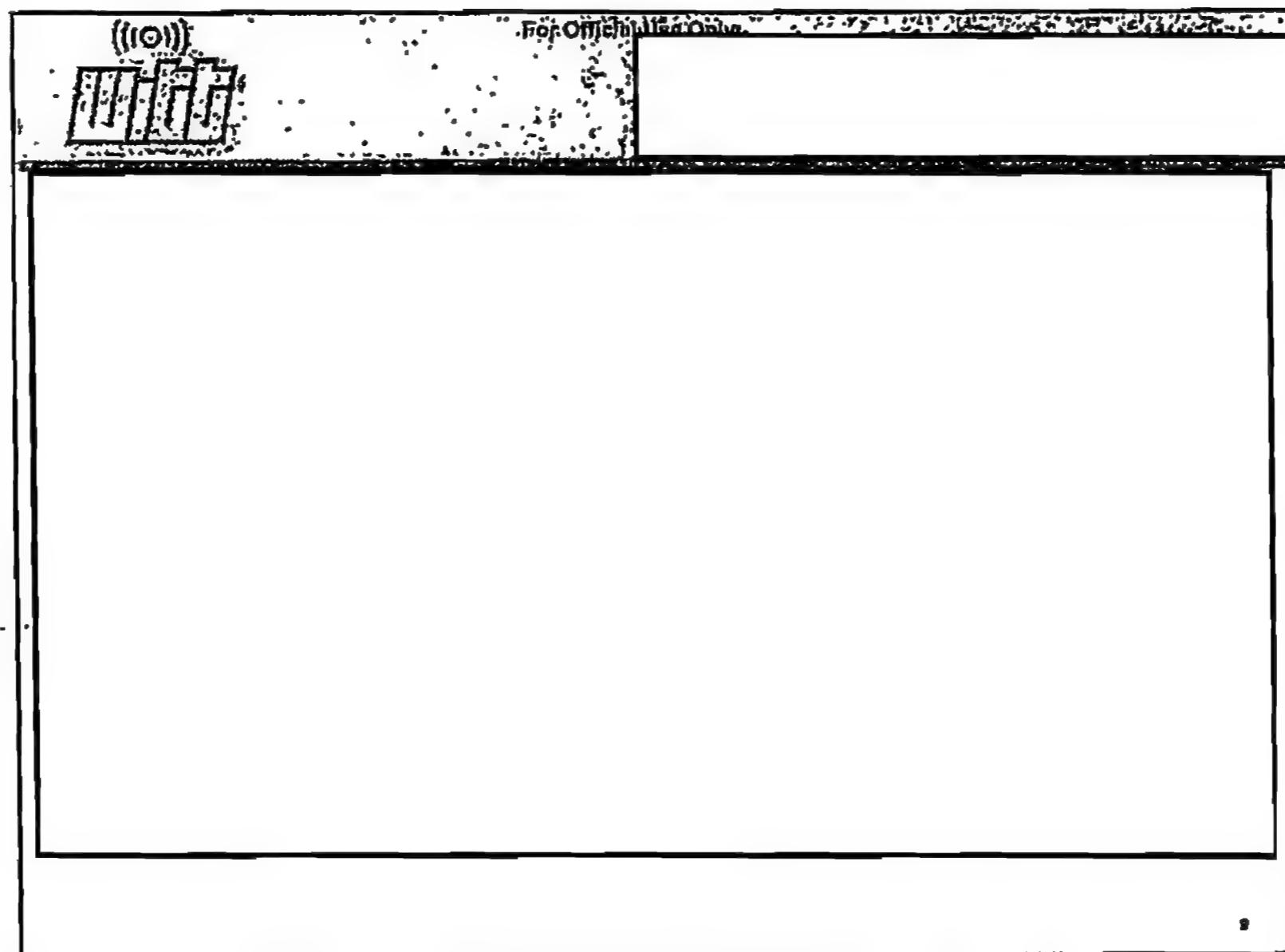


b3  
b7E

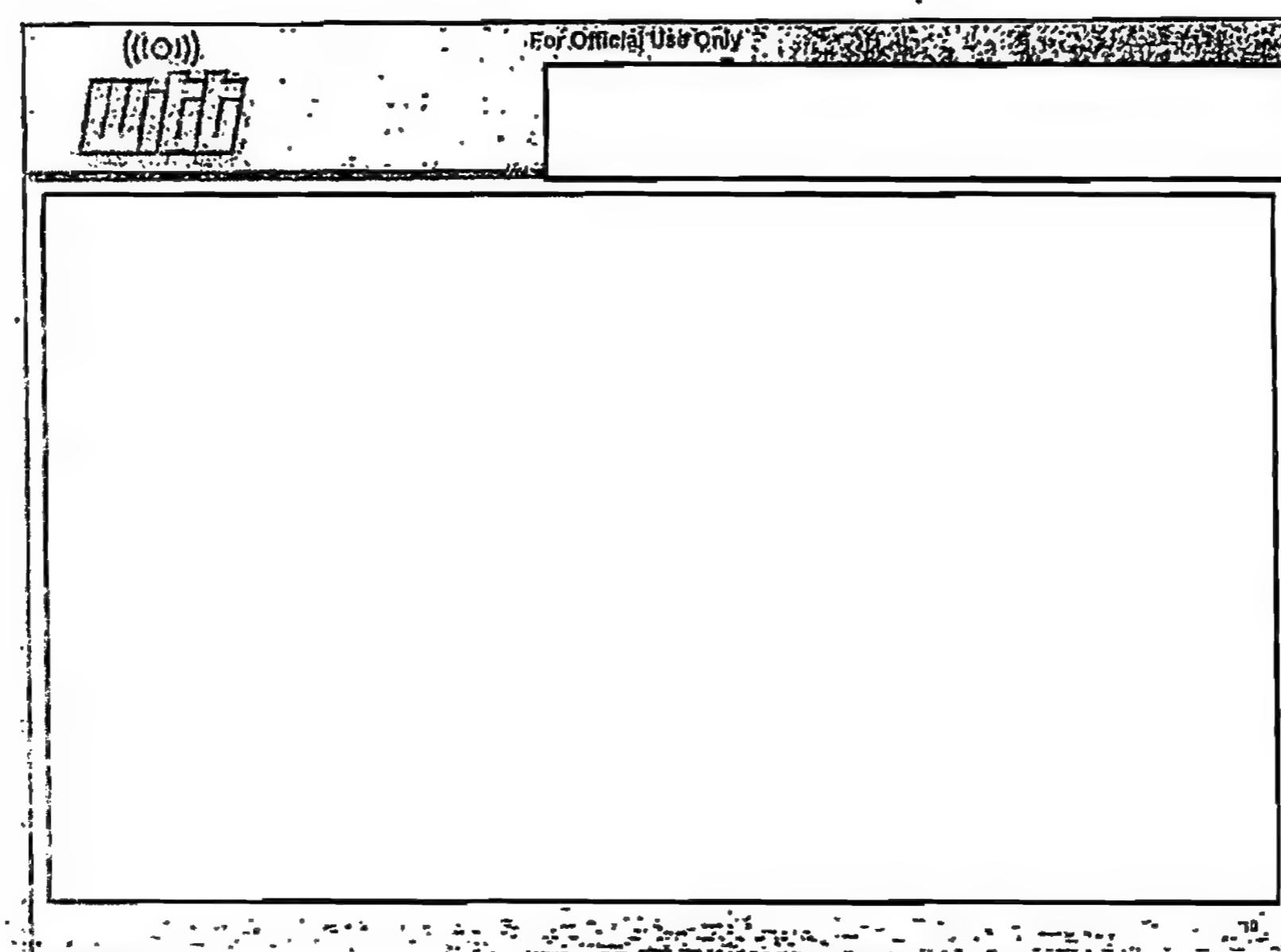
CELL/OTD 004328

4

FBICELL-185



b3  
b7E

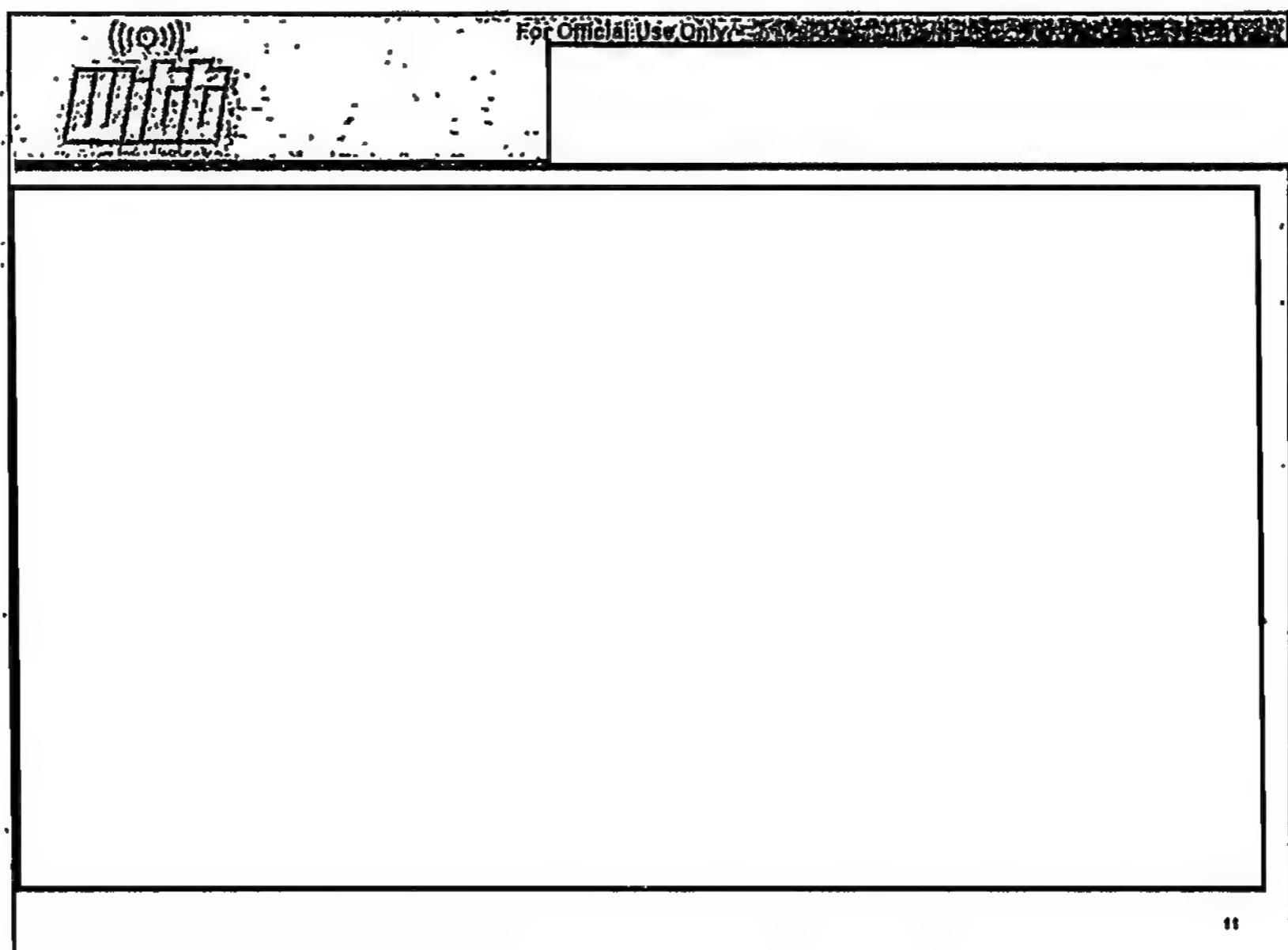


b3  
b7E

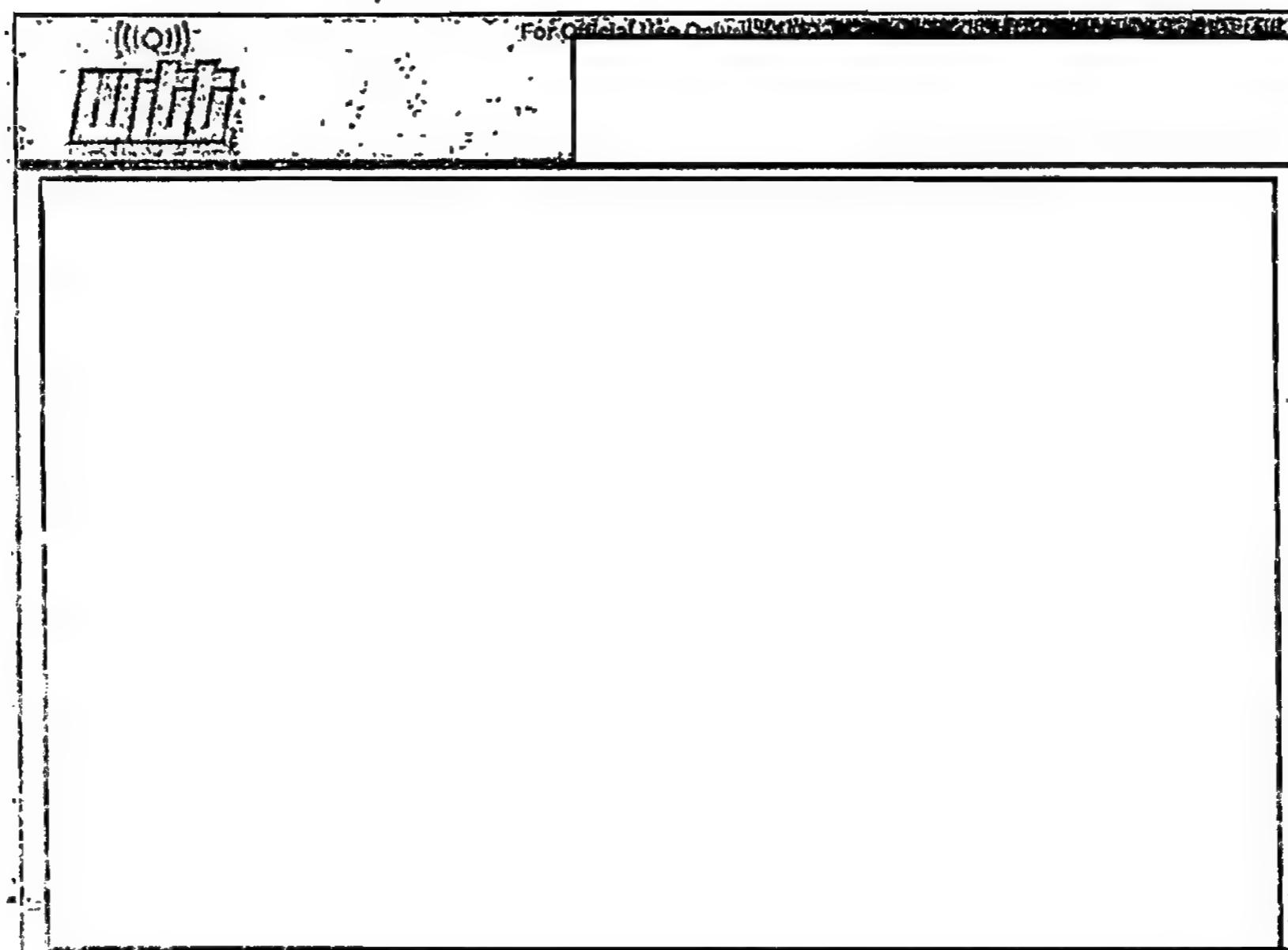
CELL/GTD 004329

5

FBICELL-186



b3  
b7E

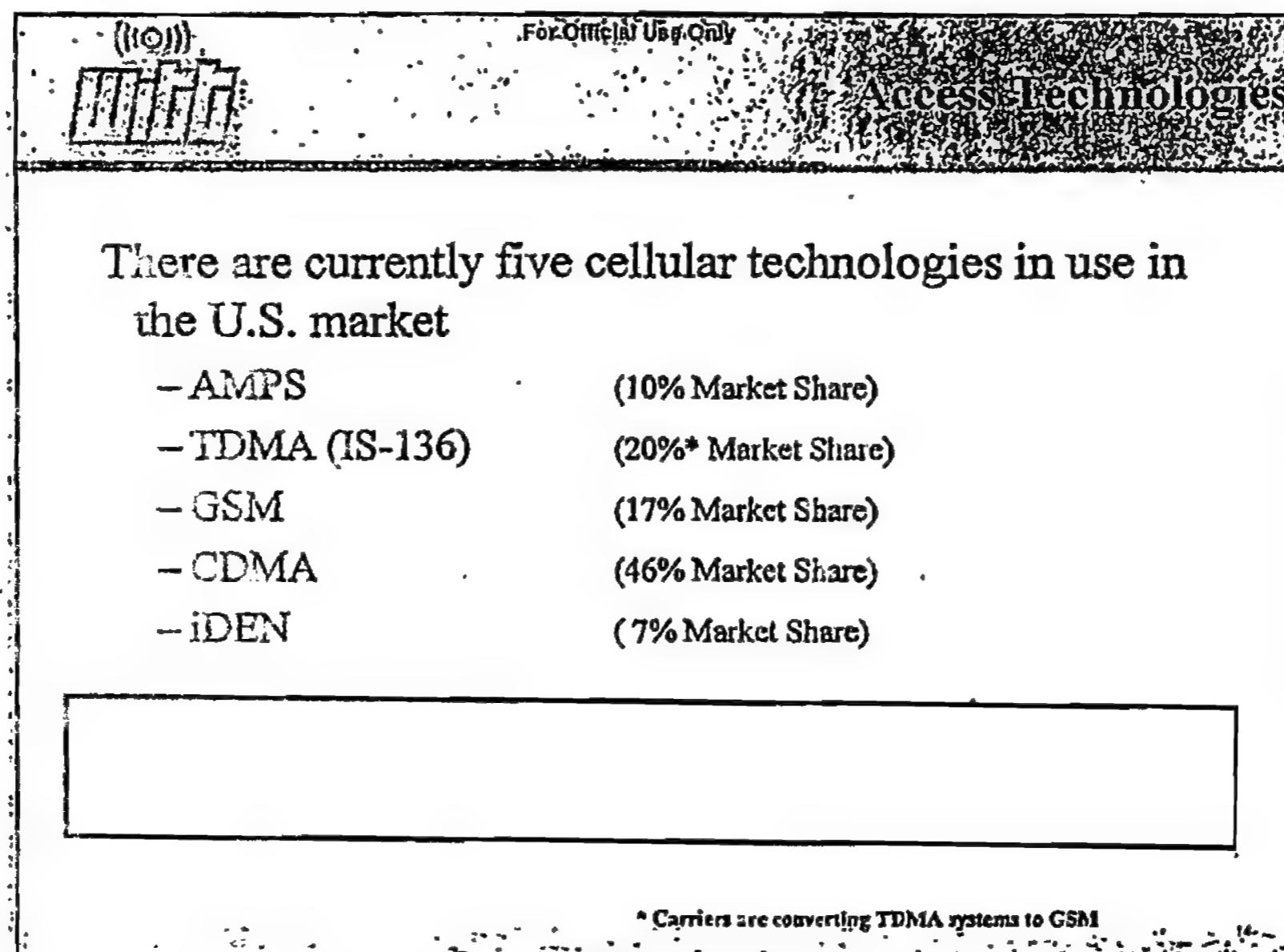
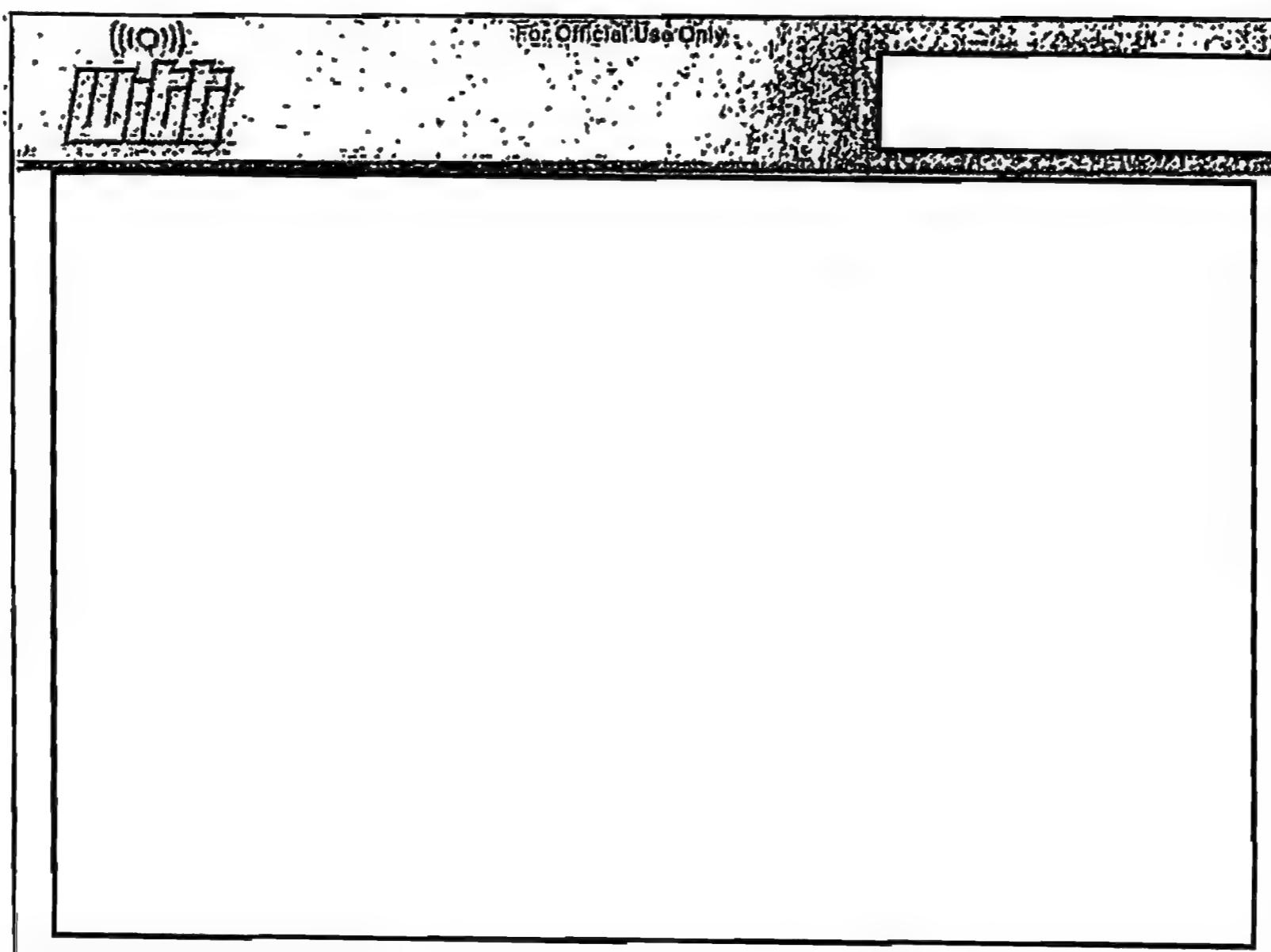


b3  
b7E

CELL/STD 004330

6

FBICELL-187



CELL/GTD 004331

7

FBICELL-188

For Official Use Only

AMPS (Advanced Mobile Phone Service)

- Background
  - Initial U.S. cellular system
  - Reached feasible system capacity limits in mid 90s
- Limitations
  - Provides basic voice service
  - No additional services: Digital Messaging, Location based services, etc

15

b3  
b7E

For Official Use Only

TDMA (Time Division Multiple Access)

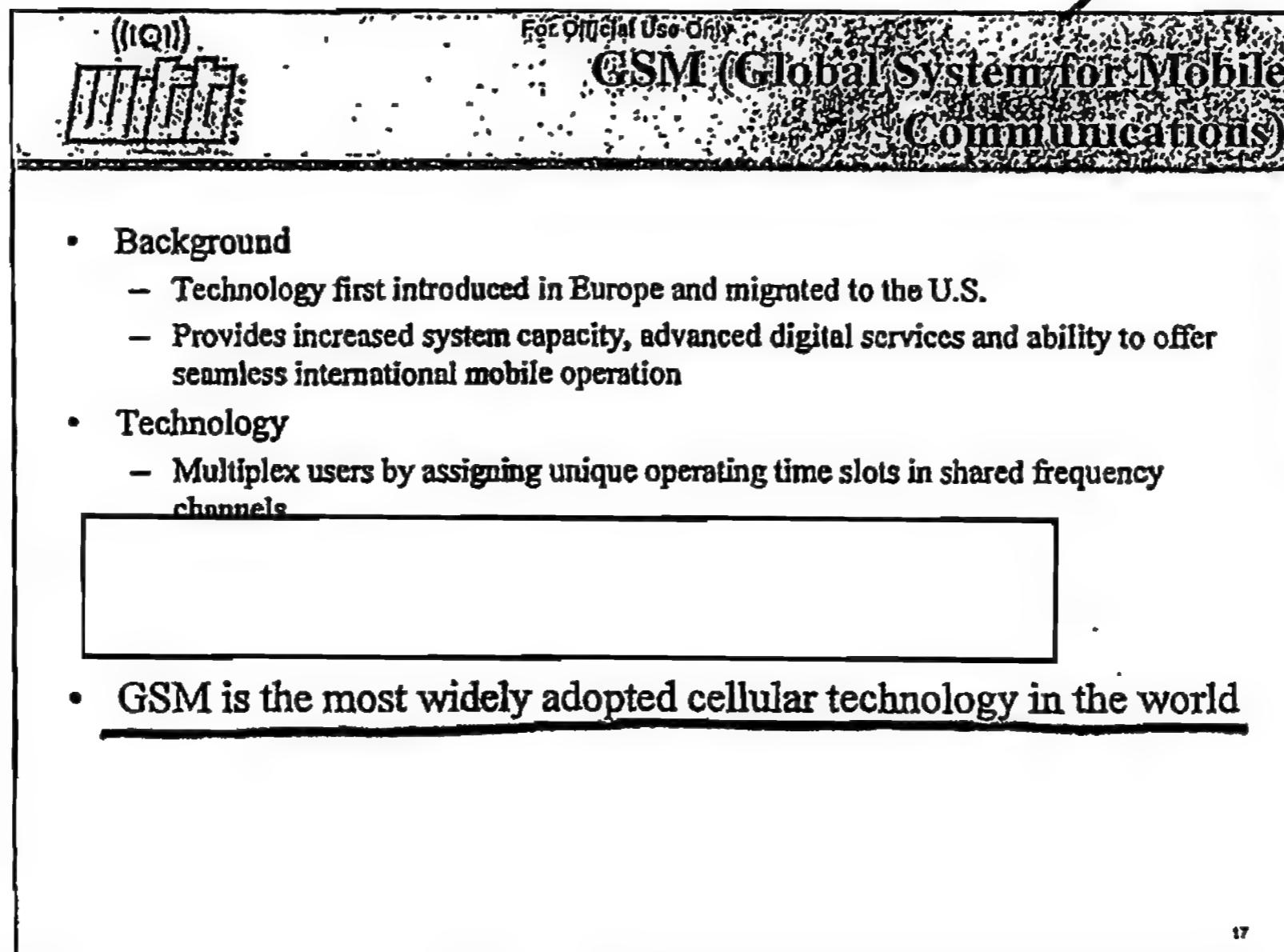
- Background
  - Technology was the first commercially available digital cellular technology in U.S.
  - Provides increased system capacity and advanced digital services
- Technology
- U.S. TDMA systems being replaced with GSM systems

b3  
b7E

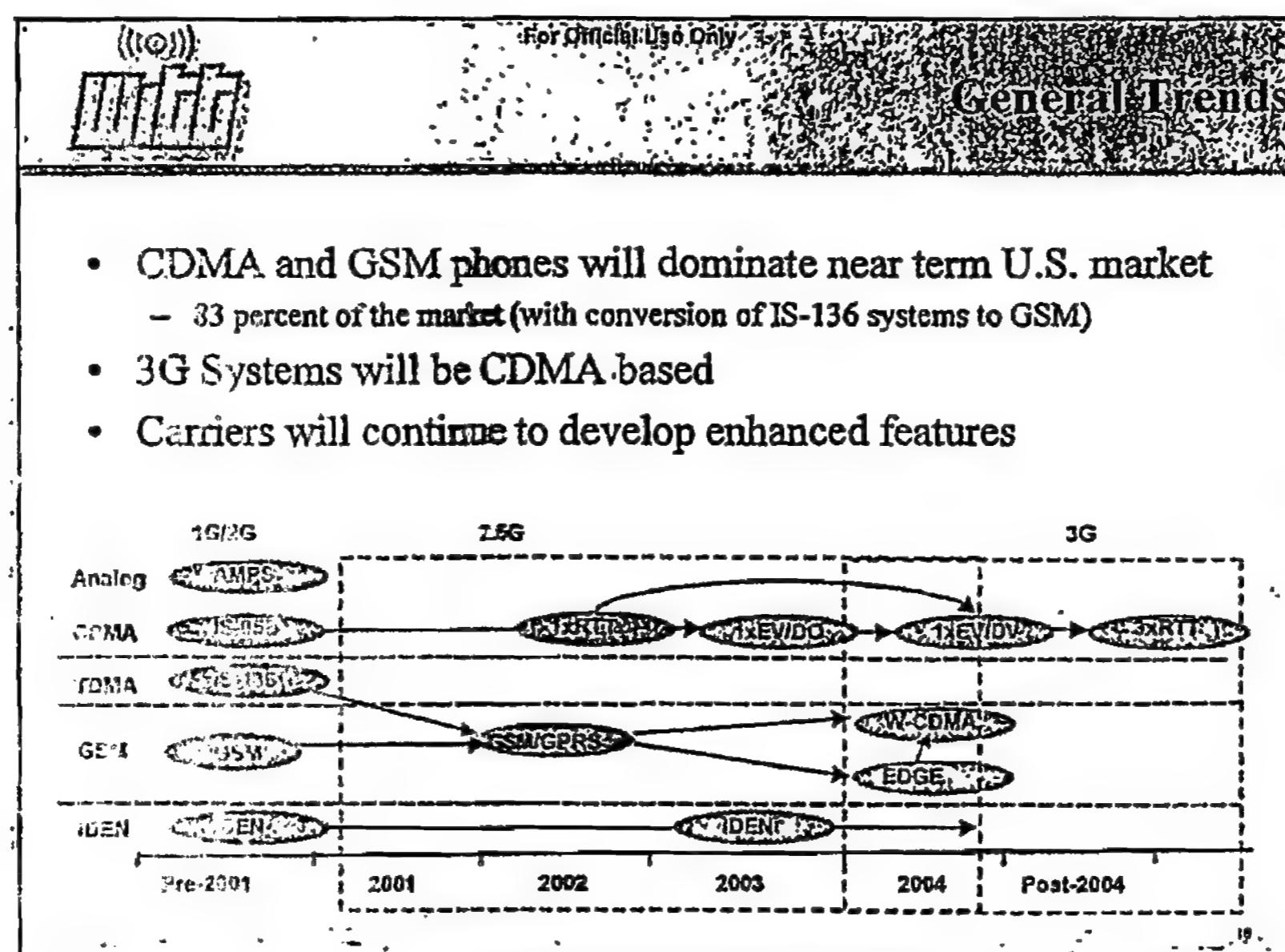
CELL/GTD 004332

8

FBICELL-189



b3  
b7E

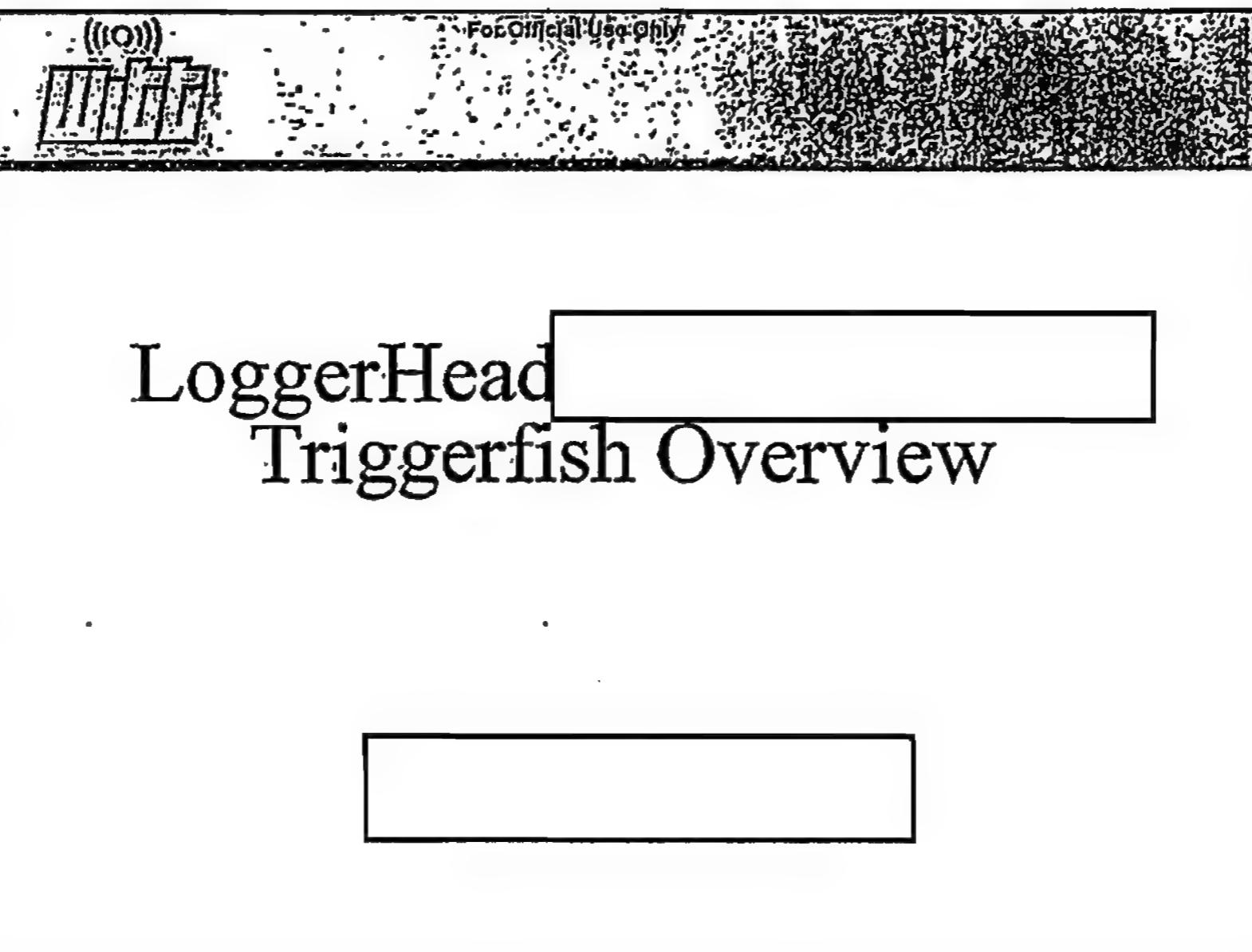


CELL/STD 004333

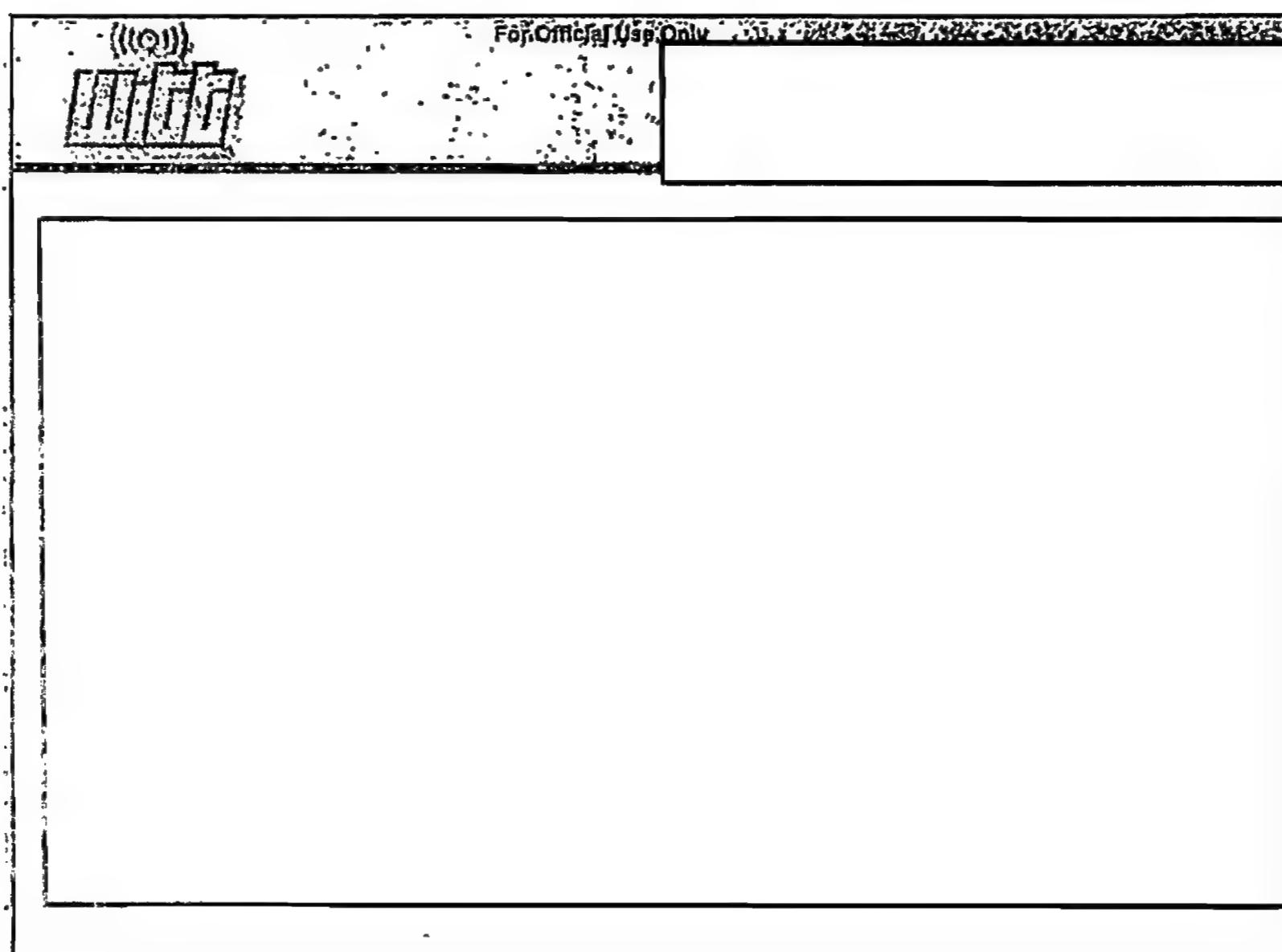
9

Loggerhead  
Triggerfish

b3  
b7E



b3  
b7E

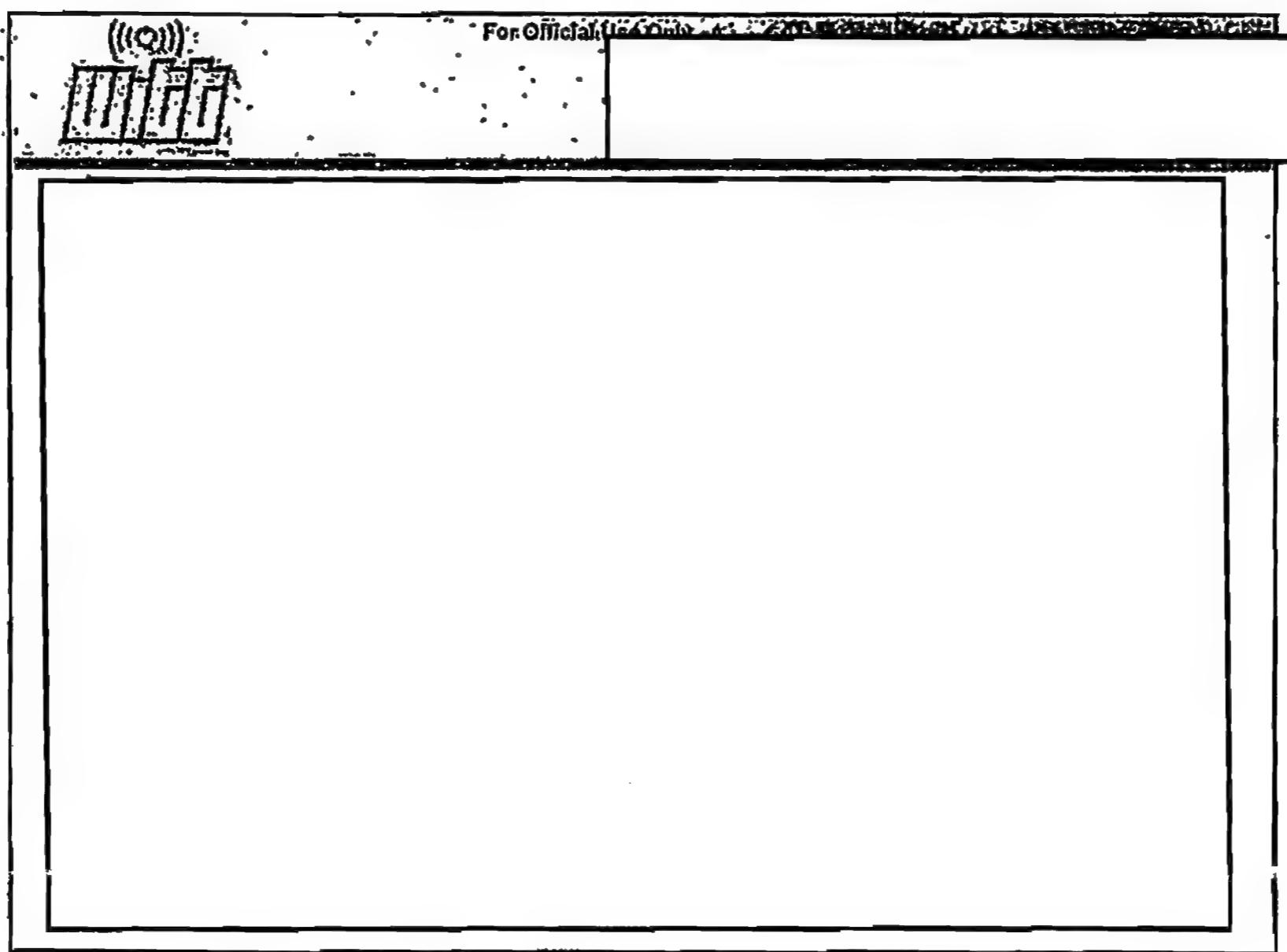


b3  
b7E

CELL/OTD 004334

1

FBICELL-192



CELLXOTE 0000043

Intro to



b7E

FBICELL-194

(((Q)))

For Official Use Only

Introduction to [redacted]

[redacted]

b7E

(((Q)))

For Official Use Only

[redacted]

b3  
b7E

ALL/OTD 004342

1

FBICELL-195

Overview

b3

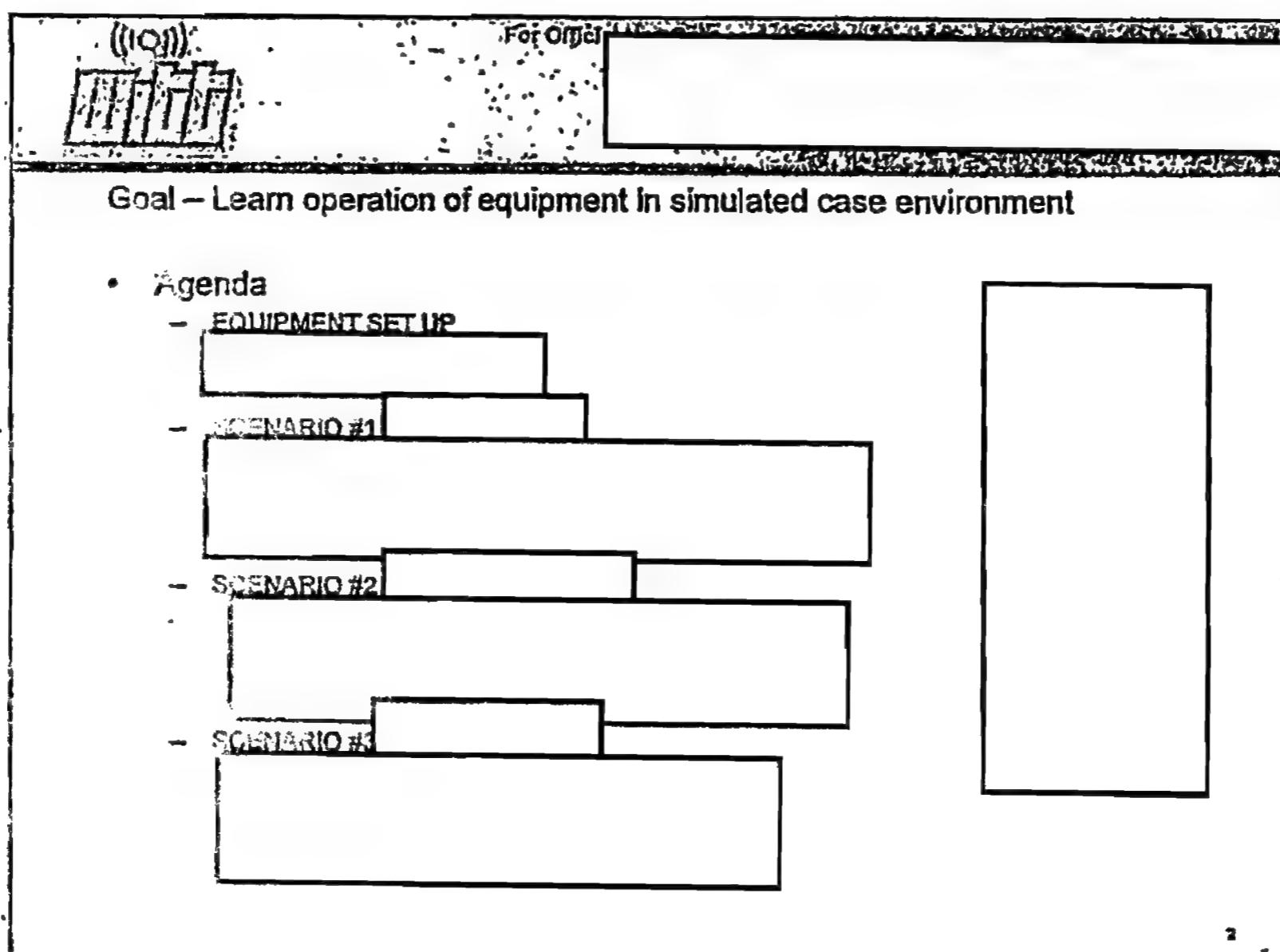
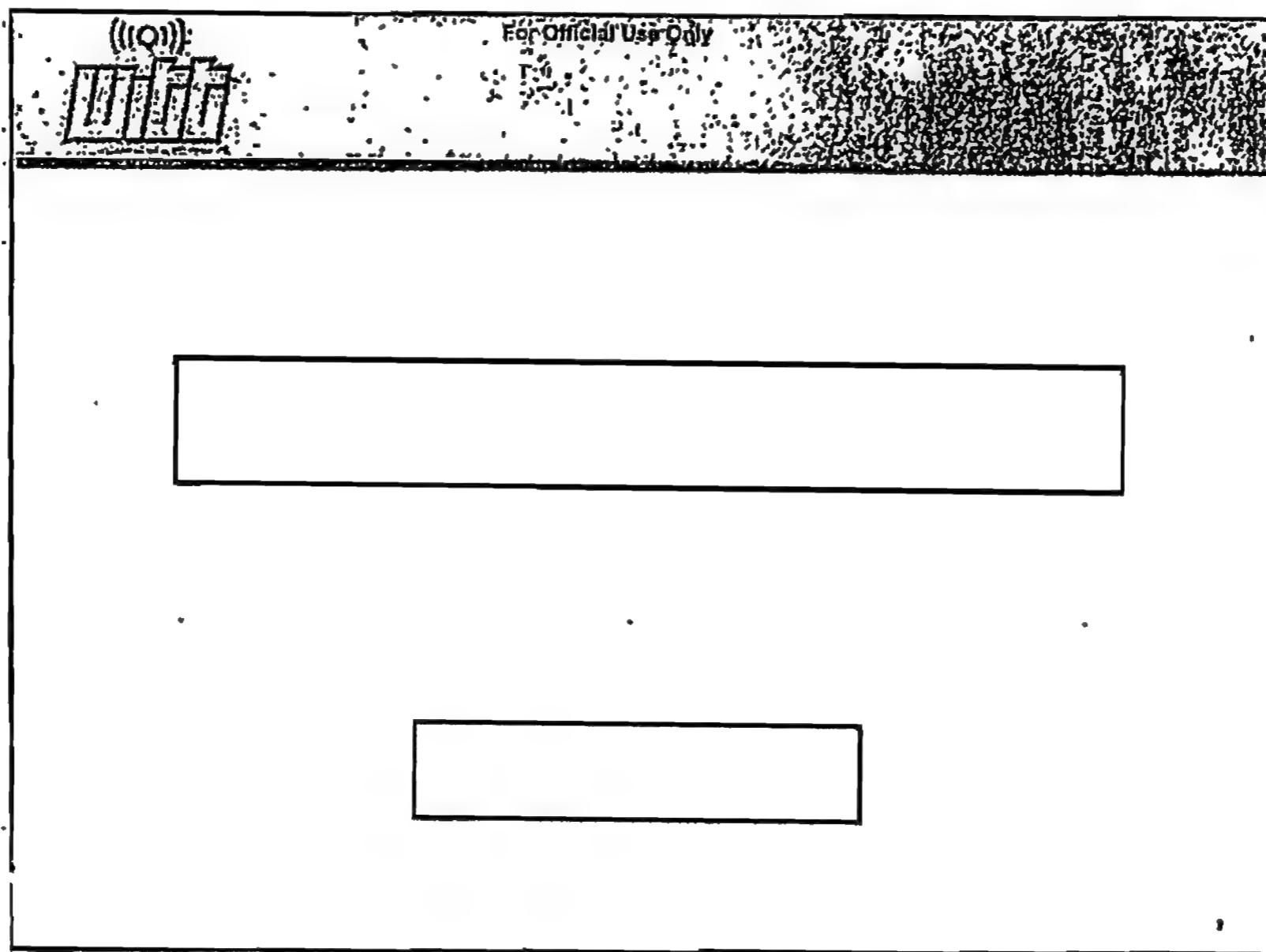
b7E

FBICELL-196

• • • • • • • • • • • • • • •



• • • • • • • • • • • • • b3  
b7E



CELL/OTD 004357

1

FBICELL-198

((Q)) For Official Use Only Scenario #1

- Set up
- Location

b7E

((Q)) For Official Use Only Scenario #2

- Set up
- Location

b7E

CELL/STD 004358

2

FBICELL-199

((Q))

For Official Use Only

Scenario #3

- Set up
- Location

b7E

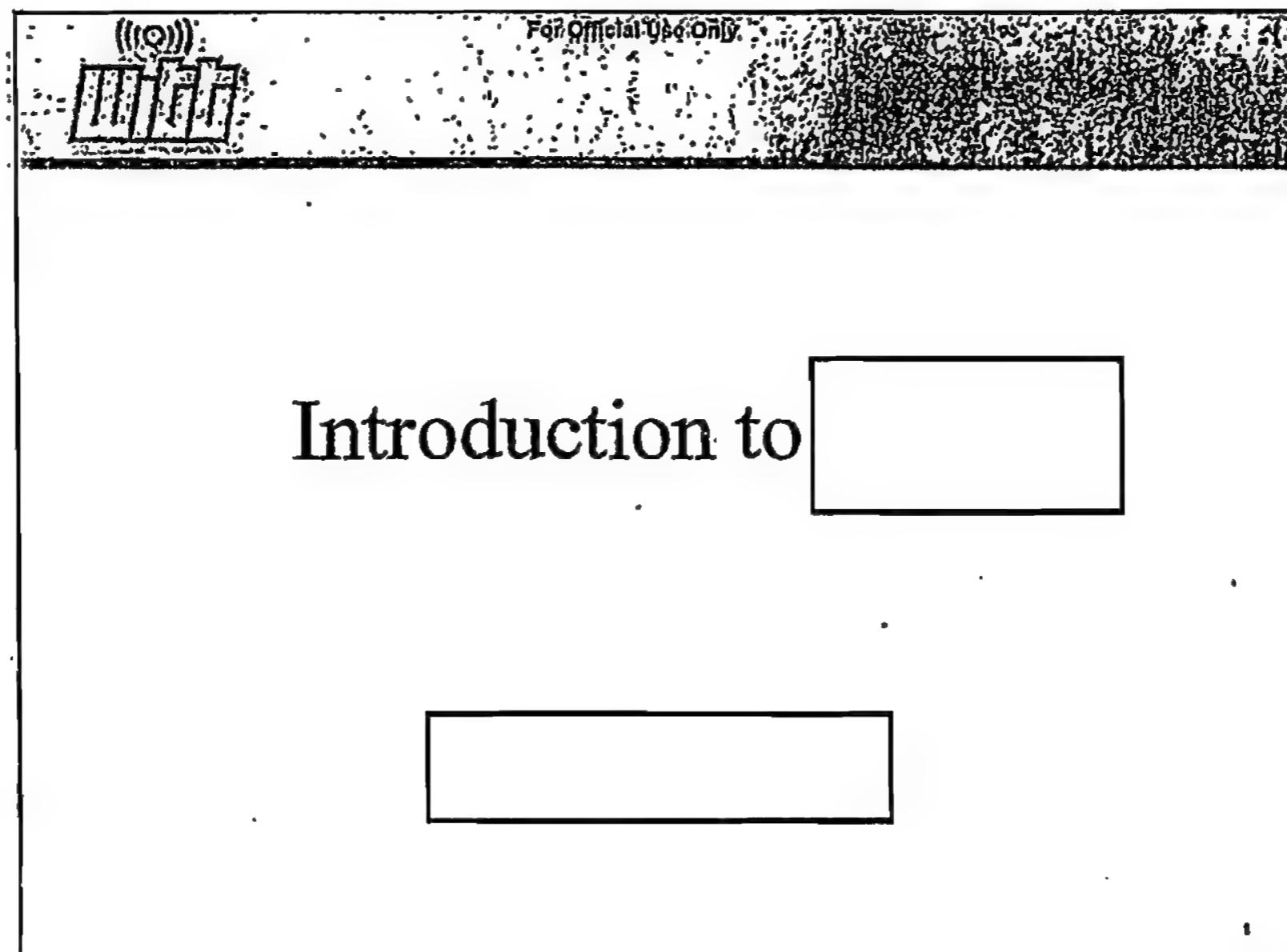
CELL/OTD 004359

3

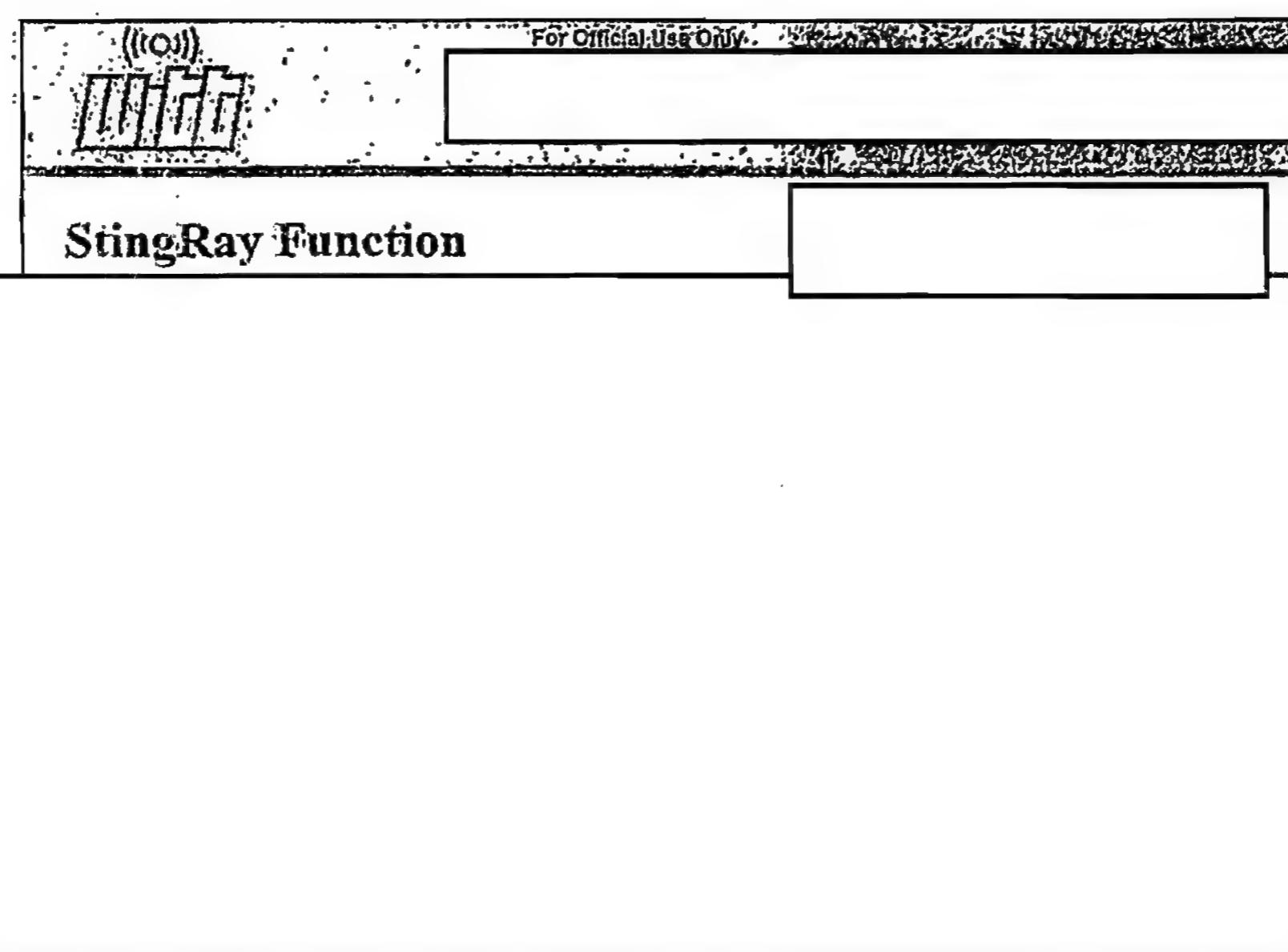
FBICELL-200

Intro to [redacted] b7E

FBICELL-201



b7E

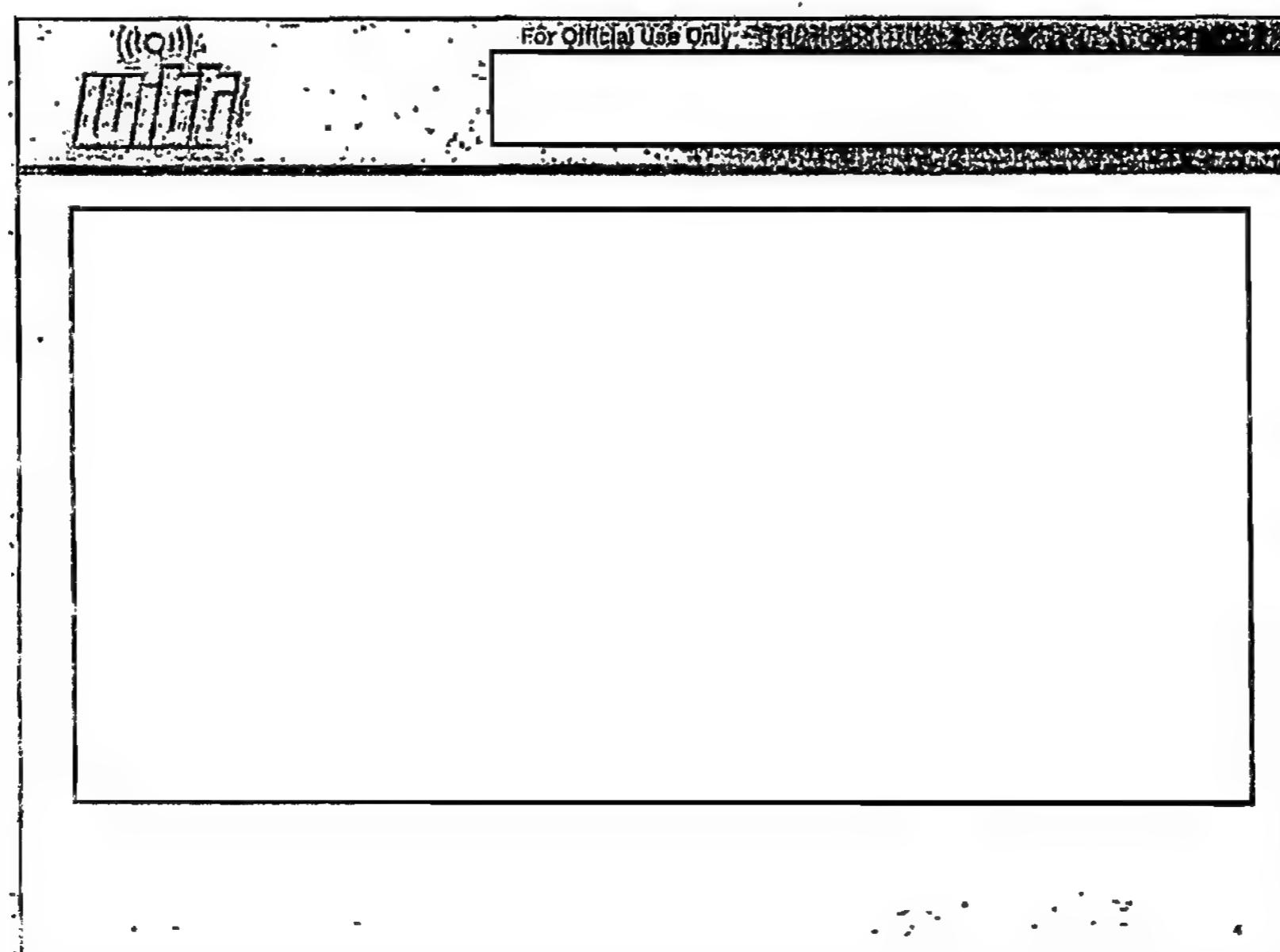
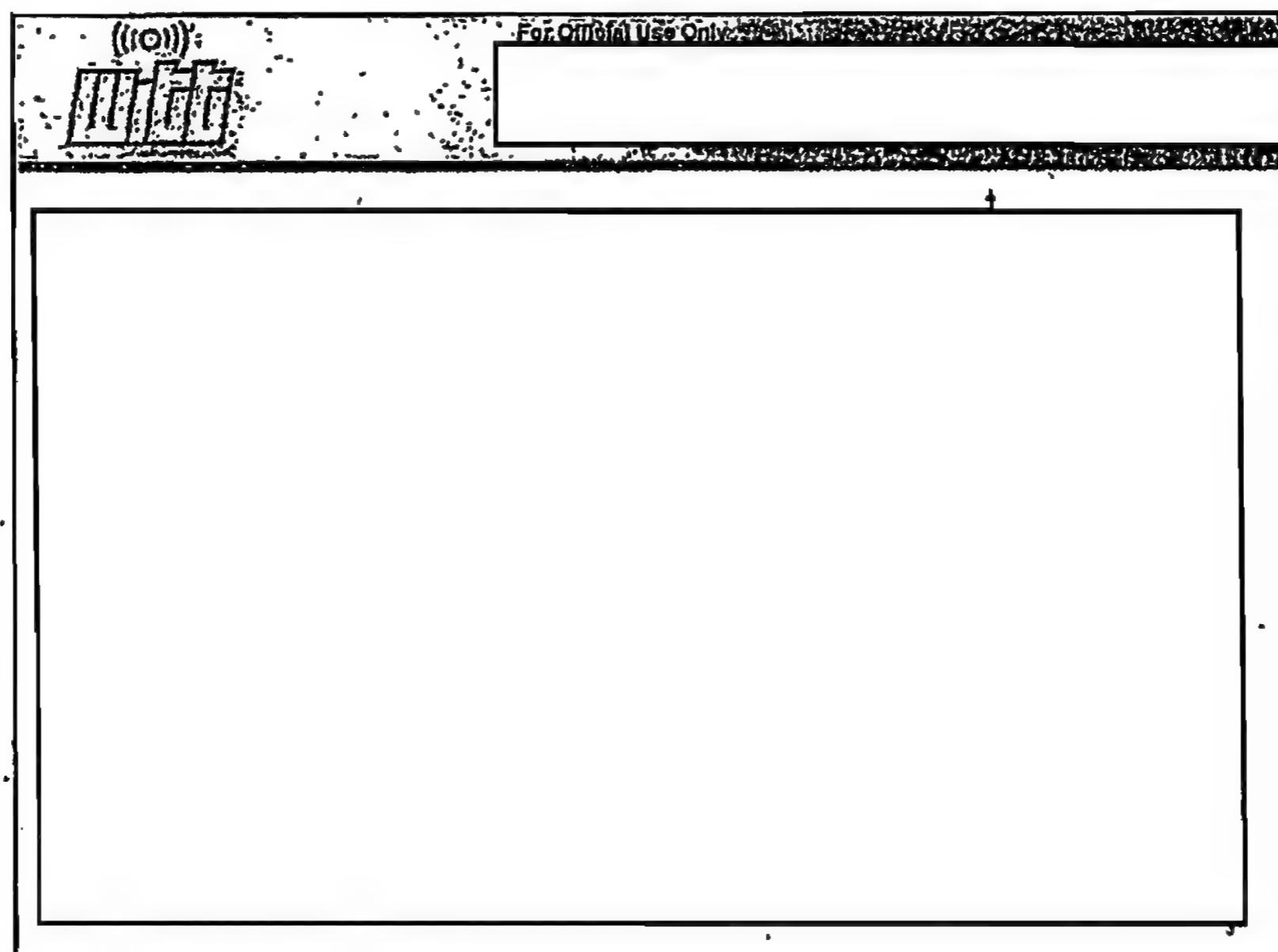


b3  
b7E

CELL/OTD 004369

1

FBICELL-202



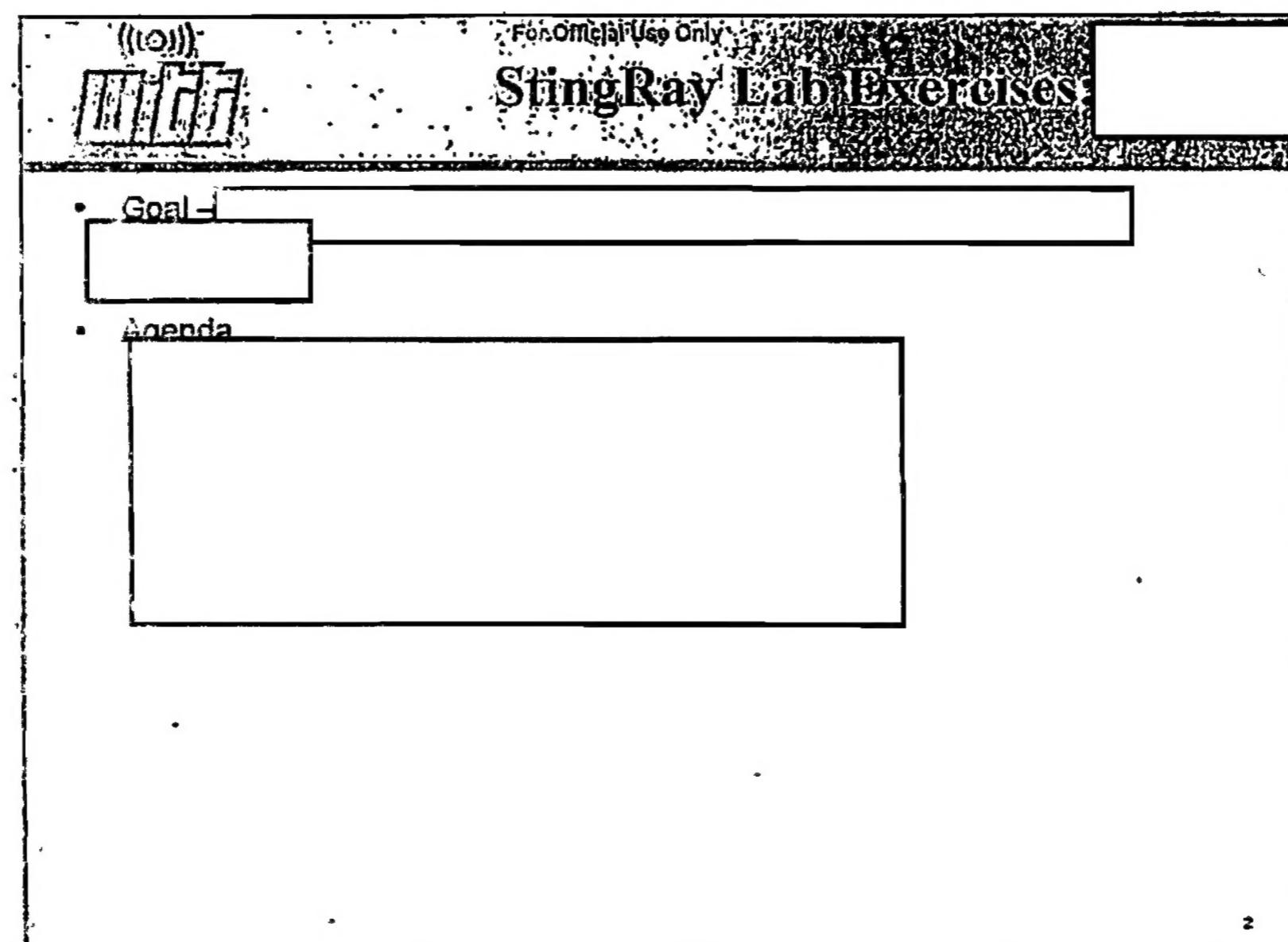
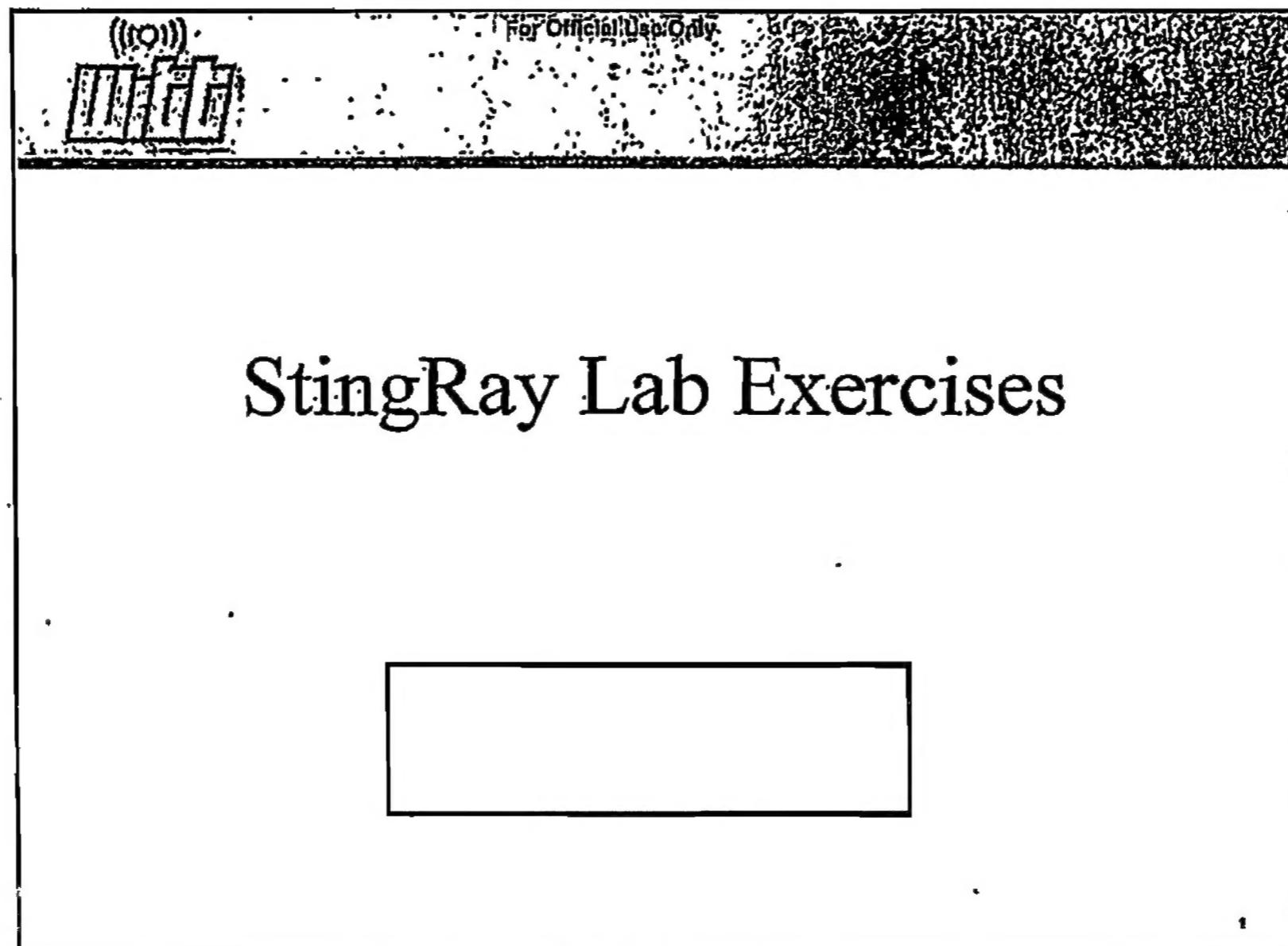
CELL/STD 004370

2

FBICELL-203







CELL/OTD 006393

1

((Q))

For Official Use Only

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

523

524

525

526

527

528

529

530

531

532

533

534

535

536

537

538

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

770

771

7